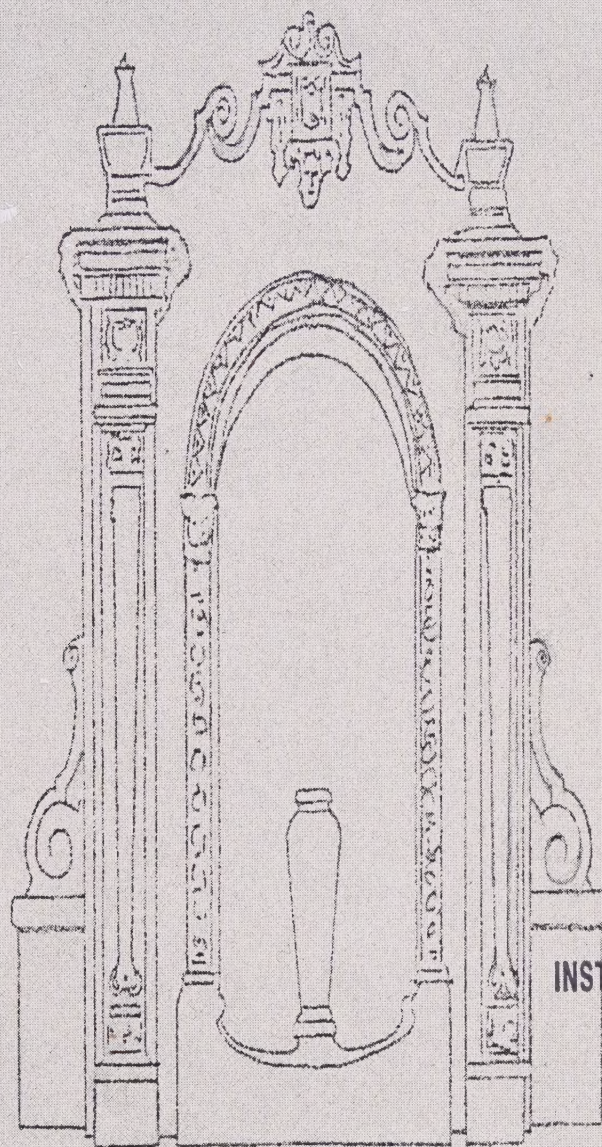


CITY OF PIEDMONT



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GENERAL PLAN 1996



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**GENERAL PLAN
CITY OF PIEDMONT**

PREPARED FOR:

**CITY OF PIEDMONT
120 VISTA AVENUE
PIEDMONT, CALIFORNIA 94611**

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TABLE OF CONTENTS

LIST OF EXHIBITS

Exhibit 1 - City of Piedmont and Vicinity	II-2
Exhibit 2 - Land Use Plan	III-2
Exhibit 3 - Roadway Widths	IV-2
Exhibit 4 - 1994 Average Daily Traffic Volumes	IV-6
Exhibit 5 - Functional Street Classification	IV-10
Exhibit 6 - Bus Routes	IV-12
Exhibit 7 - Pedestrian Pathways	IV-14
Exhibit 8 - Major California Earthquake Faults	VII-2
Exhibit 9 - Potential Geologic Hazards	VII-5
Exhibit 10 - Potential Water Hazards	VII-7
Exhibit 11 - Noise Contours in City of Piedmont	VIII-4

LIST OF TABLES

Table A - City of Piedmont Population Growth 1910 to 1990	II-5
Table B - City of Piedmont Population, Housing Units and Population per Household Relative Changes 1940 to 1990	II-6
Table C - City of Piedmont Projections of Population, Households and Employment 1990 to 2010	II-7
Table D - City of Piedmont Land Use Plan Statistical Summary	III-3
Table E - City of Piedmont Density and Intensity Standards	III-4
Table F - City of Piedmont Average Daily Traffic Volumes	IV-3
Table G - City of Piedmont Functional Street Classification	IV-7
Table H - City of Piedmont Street Classification Criteria	IV-8
Table I - City of Piedmont Design Standards	IV-9
Table J - City of Piedmont Pedestrian Pathways	IV-15
Table K - City of Piedmont Open Space	VI-2
Table L - Earthquake Probabilities by Fault	VII-3
Table M - City of Piedmont Noise Measurement Results	VIII-3

THE NATURE OF PLANNING

Planning is an approach to problem solving, a process for making informed decisions about the future. Although everyone plans to some extent by trying to foresee the consequences of different courses of action and selecting what appears to be the best one, formal planning is usually characterized by a number of activities:

- Identifying the problems or issues;
- Analyzing them;
- Formulating goals and objectives;
- Developing and evaluating alternative courses of action;
- Selecting the preferred course of action; and
- Monitoring implementation and adjusting plans and policies.

In practice, these activities are rarely discrete, sequential steps. They often overlap in a cyclical rather than a linear process in which experience provides the impetus for course corrections. Like budgeting, governmental planning is a political process for allocating scarce resources among competing demands. In sum, the purpose of planning is not to prepare plans but to produce intelligent, informed decisions.

THE ROLE OF THE GENERAL PLAN

In California, State law requires each city and county to adopt a general plan documenting its decisions concerning the future of the community. Preparing, adopting, and maintaining a general plan serves to:

- Identify the community's land use, circulation, environmental, economic, and social goals and policies as they relate to land use and development.
- Provide a basis for local government decision making, including a nexus to support development exactions as required by *Nollan v. California Coastal Commission* (1987) 107 S.Ct. 3141.
- Provide citizens with opportunities to participate in the planning and decision making processes of local government.

- Inform citizens, developers, decision makers, and other cities and counties of the ground rules that will guide development within the community.

The General Plan is a legal document which serves as the community's "constitution" for the development and use of its land, circulation, housing, open space, recreation and conservation, safety, noise, and community design. It is a comprehensive, long-term document detailing the "physical development of the city, and any land outside its boundaries which in the planning agency's judgement bears relation to its planning" (Government Code Section 65300 et seq.). The General Plan has a time horizon of 10 years to the year 2005. The General Plan represents, at a given point in time, the City of Piedmont's aspirations for the future.

HISTORY OF THE GENERAL PLAN

The first state law enabling preparation of local general plans was adopted in 1927. It was not until 1955, that legislation required the adoption of a general plan with elements as we know them today; land use and circulation. Since 1955, the Legislature has added five elements to the general plan, bringing the total to seven topics or "elements". These elements are land use, circulation, housing, conservation, open space, noise, and safety.

In 1958, the Piedmont City Council approved the Preliminary Master Plan prepared by the Planning Commission. This plan served as the basic General Plan document for the City of Piedmont. In addition, the City Council adopted the required Noise Element and Seismic Safety Element in 1974 and 1975, respectively. In 1984, the City Council adopted a comprehensive General Plan document which included the following elements: Land Use and Zoning; Circulation; Housing; Educational Facilities and Programs; Recreational Facilities and Programs; Public Utilities and Services; Public Safety; Environmental Hazards; Community Design and Appearance; and Fiscal Resources.

In 1990, the City initiated an update of the Housing Element. The Housing Element Update was undertaken to comply with State requirements and ensure the inclusion of the following major components: an identification of existing and projected housing needs and constraints; a statement of goals, policies, quantified objectives, and scheduled programs for the preservation, improvement, and development of housing; and an identification of adequate sites for a variety of housing types, as appropriate. The City Council adopted the Housing Element in 1992.

In 1992, the City initiated an update of all elements of the General Plan document except for the Housing Element. The updated General Plan represented in this document consolidated the ten elements from the 1984 General Plan into eight elements which include the seven mandatory elements of the General Plan. It was the intent of the General Plan revision process to prepare a document which satisfied the collective requirements of all seven mandatory elements and addressed the issues of concern to the local community. The General Plan revision process is discussed in greater detail below.

GENERAL PLAN REVISION PROCESS

The Piedmont City Council appointed a nine member General Plan Review Committee charged with revising the City's General Plan. Working with City staff for a period of six months, the Review Committee completed the review and preparation of a Preliminary Draft General Plan.

After further review of the Preliminary Draft by other City commissions and local affected agencies, the Review Committee submitted its final Draft General Plan to the City Council in

January, 1995. This action started the official review by the general public prior to public hearings before the Planning Commission and City Council.

The Planning Commission review of the Draft General Plan commenced in January, 1995. A Public hearing was held on February 13, 1995 and February 12, 1996. After thoroughly reviewing the Draft General Plan and public testimony on February 12, 1996 the Planning Commission recommended the City Council hold public hearings and adopt the General Plan.

The City Council held public hearings on the General Plan on April 17, 1995, January 16, 1996, and February 20, 1996. The City Council adopted the General Plan on February 20, 1996.

FUTURE UPDATE OF THE GENERAL PLAN

The General Plan will be reviewed by City Staff on an annual basis. Amendments, if warranted, will be made by the City Council. To ensure that the conditions and assumptions upon which the General Plan policies and implementation programs are based are still relevant, the General Plan should be revised on a comprehensive basis as needed.

An important part of the updating process is following through on the various recommendations for further studies of particular problems. The City will pursue completion of these studies as time and resources permit. The draft findings will be made available for public review.

ORGANIZATION OF THE GENERAL PLAN

The General Plan consists of the following three documents:

- General Plan
- General Plan Background Document
- General Plan Environmental Documentation

The General Plan includes the goals, policies, and implementation programs that constitute the formal policies of the City of Piedmont for land use, development, and environmental quality. The General Plan Background Document provides oversized exhibits, the General Plan Responsibility Matrix, the General Plan Requirement Index, a summary of the public involvement process, and inventories and analyses of existing trends and conditions in the City. It provides supporting background information for the General Plan policies for the following topics: land use; circulation; housing; recreation and open space; noise; safety; and community design. The General Plan Environmental Documentation provides an analysis of the

environmental issues related to the revision of the General Plan consistent with the California Environmental Quality Act (CEQA).

DEFINITIONS

The following definitions describe the nature of the statements of goals, policies, objectives, and implementation programs as they are used in this document:

Goal - The ultimate purpose of an effort stated in a way that is general in nature and immeasurable.

Policy - A specific statement in text or diagram guiding action and implying clear commitment.

Objective - A specific, often quantified guideline, incorporated in a policy or implementation program, defining the relationship between two or more variables. Objectives can often translate directly into regulatory controls.

Implementation Program - An action, procedure, program or technique that carries out general plan policy. Implementation programs also specify primary responsibility for carrying out the action and time frame for its accomplishment.

The City of Piedmont is one of the few cities in California completely encircled by another. This City of 1.8 square miles is surrounded on all sides by the City of Oakland, leaving no room for expansion. Exhibit 1 shows the City of Piedmont and its vicinity. The land inside its limits is devoted almost exclusively to residential uses, the first precept set forth in the City Charter (Section 9.02 of the Piedmont City Charter). Any departure from this concept of the City of Piedmont as a city of homes could be mandated only by the majority vote of its residents.

Many of the cities in the surrounding area have allowed significant zoning changes in their single-family residential zones, yet the City of Piedmont's single-family zoning has been vigorously maintained. The benefits from this zoning policy have been numerous. The City has provided quality housing to the East Bay community for generations.

Having a policy of limited commercial activity in the City of Piedmont has significantly affected the amount of revenue generated from the sales tax, typically a major source of revenue for municipalities. Over the years this has been somewhat offset by the willingness of citizens to volunteer their time and energies in behalf of the City and to tax themselves beyond the level of most cities in an effort to retain the quality residential character.

A strong sense of community and identity has long been a characteristic of the City. The City of Piedmont is well known for the beauty of its parks, the annual Fourth of July parade, and numerous community-based activities which are made possible because of the care and concern given by the residents. The desire to protect and preserve the City has been a consistent concern of the residents.

The City of Piedmont is a full-service city in that it has its own police, fire, recreation, and public works departments. The Piedmont Unified School District boundary is the same as the City boundary. At the same time, its residents, to a great extent, are dependent on the surrounding greater Oakland area. These areas of dependence and interaction include shopping districts, cultural attractions, library and higher educational facilities, regional recreational activities, employment opportunities, hospitals, and professional services.

ENVIRONMENTAL SETTING

There is little flat land in the City of Piedmont. For the most part, the area consists of rolling hills, cut by numerous canyons, sloping southwesterly toward San Francisco Bay. Diamond Canyon sets the eastern boundary while the western limits follow the course of Moraga Canyon. Within the City of Piedmont, the principal drainage courses are Indian Gulch, Piedmont Park, and Dracena Park Canyon. Exhibit 1 provides the City in its topographical setting.



Exhibit 1
CITY OF PIEDMONT & VICINITY



The elevation ranges from 40 feet at the junction of Wildwood Avenue and Grand Avenue to 704 feet at the northernmost point of the City, above the corporation yard quarry. Most of the residential area lies in the zone between the 100-foot and 500-foot contours. Slopes vary from moderate to steep. This irregular topography was the main factor compelling the adoption of the unsystematic street pattern. Basic rock formations of the hills consist of shale and sandstone uplifts of marine origin, with topsoil deep enough to support heavy vegetation.

Climate, similar to the other eastshore cities, is without extremes of temperature. The usual range is from 40 to 70 degrees. Annual precipitation varies from 12 to 30 inches, with a mean of about 21 inches. A typical year is characterized by a rainless period from June to October and precipitation from November to March.

HISTORICAL SETTING

In the 1850s, Colonel John C. Hayes acquired a portion of the hills immediately above the current City of Piedmont. To reach this property, he constructed a wagon road along the creek at the bottom of the ravine. This early road eventually became Moraga Road and the first indicator of Piedmont's northern boundary. In 1852, Walter Blair bought 600 acres, extending from what is now Mountain View Cemetery to Pleasant Valley Road and up to Scenic Avenue, and began the development of a community. A land development company acquired 300 acres from Blair and others in 1873 and thereafter there was a steady buildup as a residential section. When the City of Piedmont was incorporated in 1907, there were more than a 1,000 residents.

In the early 1900s, the City of Oakland became interested in expanding its boundaries. The leadership of a few far-sighted citizens prevented the City of Piedmont from becoming part of "Greater Oakland." The incorporation procedure was organized hastily to forestall annexation by the City of Oakland and surveying for logical boundaries was not possible in such a short time. The northern line of the City of Oakland became the southern line of the City of Piedmont and the eastern line of Oakland became the western line of the City of Piedmont. The remaining boundaries were those of the old City of Piedmont Sanitary District of Alameda County. The City of Piedmont became an independent municipality on January 31, 1907 when the residents voted to approve a hastily drawn charter establishing the area as a city.

In 1909, the City of Oakland annexed all of the surrounding acreage north and east of the City of Piedmont and the common boundaries of the two municipalities have never been changed. With subsequent development, many dwellings sit astride this boundary as a result of the informal selection of the original boundaries along the Sanitary District lines. This legacy still affects the City of Piedmont.

PAST GROWTH AND DEVELOPMENT TRENDS

Most of the City of Piedmont was developed between 1910 and 1930. The population of the City increased from 1,719 in 1910 to 4,282 in 1920 (149 percent) and to 9,333 by 1930 (118 percent). Today, the City of Piedmont is essentially built out, with a population of 10,602 as of 1990. Changes in the total population over the past 80 years are provided in Table A.

The total population remained relatively stable from 1930 to 1990, even though a number of dwelling units increased as homes were built on vacant lots or created from the subdivision of the old estates. This was a result of the continuing decline in the average household size. The changes from 1940 to 1990 are summarized in Table B.

PROJECTIONS OF POPULATION, HOUSEHOLDS AND EMPLOYMENT

The City of Piedmont has a higher average household size than most other cities in Alameda County, being exceeded only by the newer, family-oriented, suburban communities in the southern and eastern parts of the County. Table C presents projections of population, households, and employment through the year 2010 as developed by the Association of Bay Area Governments. These projections are based upon continuation of local policies and current trends. As a result, very little growth is anticipated for the City of Piedmont during the period from 1990 to 2010. The slight growth in population is due to an increase in family size, not new development in the City of Piedmont. A socioeconomic profile for the City of Piedmont is provided in Section D of the General Plan Background Document.

TABLE A
CITY OF PIEDMONT
POPULATION GROWTH
1910 TO 1990

Census	Population	Change	Percentage
1910	1,719	---	---
1920	4,282	+ 2,563	+ 149.1%
1930	9,333	+ 5,051	+ 118.0%
1940	9,866	+ 533	+ 5.7%
1950	10,132	+ 266	+ 2.7%
1960	11,117	+ 985	+ 9.7%
1970	10,917	-200	-1.8%
1980	10,498	-419	-3.8%
1990	10,602	+ 104	+ 1.0%

Source: U.S. Department of Commerce, Bureau of Census, 1990.

TABLE B

CITY OF PIEDMONT
POPULATION, HOUSING UNITS AND
POPULATION PER HOUSEHOLD
RELATIVE CHANGES 1940 TO 1990

Year	Population % Change Over Past Decade	Housing Units % Change Over Past Decade	Population Per Household
1940	---	---	3.70
1950	+ 2.7%	+ 15.5%	3.29
1960	+ 9.7%	+ 13.5%	3.18
1970	-1.8%	+ 6.1%	3.07
1980	-3.8%	+ 3.4%	2.79
1990	+ 1.0%	+ 0.9%	2.82

Source: U.S. Department of Commerce, Bureau of Census, 1990.

TABLE C
CITY OF PIEDMONT
PROJECTIONS OF POPULATION, HOUSEHOLDS
AND EMPLOYMENT
1990 TO 2010

	1990	1995	2000	2005	2010
Population	10,602	10,600	10,600	10,600	10,700
Households	3,755	3,770	3,790	3,800	3,830
(Population/Household)	(2.82)	(2.81)	(2.80)	(2.79)	(2.79)
Employment	1,040	1,050	1,030	1,010	1,080

Source: Association of Bay Area Governments Projections 1983 (Base Year Data is from 1990 Census).

INTRODUCTION

The Land Use Element is a required element of the General Plan (California Planning and Zoning Law Section 65302) and is consistent with the other elements of the General Plan. The Land Use Element designates the general distribution and density/intensity of uses of the land for housing, commercial, parks and open space, educational facilities, civic facilities, and utilities. The Land Use Element establishes goals, policies, and implementation programs to provide the framework for future land use planning and decision making in the City. Exhibit 2, Land Use Plan, provides the location of the permitted land uses and the density/intensity of the designated land uses. The definitions and standards for each designation are provided below.

Land in the City of Piedmont is devoted almost exclusively to residential uses. There are no industrial enterprises and commercial activity is limited to retail establishments in two small areas. These areas are the Civic Center area adjacent to Highland Avenue and Vista Avenue and the commercial district along Grand Avenue near the southern boundary with the City of Oakland. The remaining developed acreage is devoted to parks, schools, religious institutions, civic facilities, and utilities. Section E of the General Plan Background Document provides information on the existing development in the City.

LAND USE DESIGNATIONS AND STANDARDS

This section provides definitions and standards for the designations shown in Exhibit 2, Land Use Plan. The land use designations described below are for both public and private development and will serve as a guide for zoning regulations and subdivision design. Table D provides a statistical summary for the Land Use Plan. Table E provides a summary of the density and intensity standards for each designation.

Residential

There are three residential designations in the City of Piedmont as described below.

Estate - The Estate Residential designation provides for the development of large lot single family residences and accessory structures in harmony with the character of existing and proposed development in the neighborhood. Many lots within this designation are non-conforming. This designation provides for development of single-family residences with a density of approximately 1 to 2 dwelling units per acre.

Suburban - The Suburban Residential designation provides for the development of single-family residences and accessory structures in harmony with the character of the existing and

RESIDENTIAL







-  Estate (1-2 units/acre)
-  Suburban (2-4 units/acre)
-  Medium (8-20 units/acre)
-  COMMERCIAL
-  PUBLIC/QUASI PUBLIC
-  OPEN SPACE



Exhibit 2
LAND USE PLAN

TABLE D
CITY OF PIEDMONT
LAND USE PLAN STATISTICAL SUMMARY

Designation	Acres	Percent of Development in City	Number of Dwelling Units	Square Footage of Non-Residential Structures
Residential				
Estate & Suburban (Single-Family)	772.4	70.3	3,752	NA
Medium (Multi-Family)	3.7	0.3	118	NA
Commercial ¹	3.7	0.3	NA	135,036 s.f.
Parks and Open Space	44.3	4.0	NA	1,929,708 s.f.
Educational Facilities	25.5	2.3	NA	1,110,780 s.f.
Churches ²	6.8	0.6	NA	NA
Civic Facilities	8.6	0.8		374,616 s.f.
Utilities ³	8.6	1.0		374,616 s.f.
Streets	223.0	20.3		9,713,880 s.f.
TOTAL	1,096.6	100.0	3,870	

Source: City of Piedmont, 1994.

s.f. = square feet

NA = Not Applicable

¹ Includes 1.5 acres on Grand Avenue zoned for commercial (Zone D), but still used for single-family dwellings.

² Includes Parochial schools.

³ Includes Piedmont Reservoir of East Bay Municipal Utility District (EBMUD) 8.26 acres, Pacific Gas & Electric Company substation 0.23 acre, and EBMUD pump house (Grand Avenue) 0.12 acre.

TABLE E
CITY OF PIEDMONT
DENSITY/INTENSITY STANDARDS

ZONING ORDINANCE				GENERAL PLAN		
ZONE DISTRICT	MINIMUM LOT AREA	MAXIMUM BUILDING HEIGHT	RESIDENT PARKING	GENERAL PLAN DESIGNATION	GENERAL PLAN DENSITY	INTENSITY ²
A Single Family Residential	10,000 s.f.	35'	2 spaces/suburban lot 1 space/700 s.f. second unit 2 spaces/up to 4 bedrooms 3 spaces/5 to 6 bedrooms	Suburban	2-4 d.u./acre (10,890 s.f. - 21,780 s.f.)	2.84 (persons/d.u.)
B Public Facilities	10,000 s.f.	25'	1 space/250 s.f.	Public/Quasi Public	NA	
C Multiple Density Residential	2,000 s.f.	35'	2 spaces/d.u.	Medium	8-20 units/acre (2,178 s.f. - 5,445 s.f.)	2.84 (persons/d.u.)
D Commercial	10,000 s.f.	35'	1 space/150 s.f. ¹	Commercial	NA	.49 FAR

TABLE E (CONT'D)
CITY OF PIEDMONT
DENSITY/INTENSITY STANDARDS

ZONING ORDINANCE				GENERAL PLAN		
ZONE DISTRICT	MINIMUM LOT AREA	MAXIMUM BUILDING HEIGHT	RESIDENT PARKING	GENERAL PLAN DESIGNATION	GENERAL PLAN DENSITY	INTENSITY ²
E Single Family Residential Estate	20,000 s.f.	35'	2 spaces/d.u. 1 space/700 s.f. second unit 2 spaces/up to 4 bedrooms 3 spaces/5 to 6 bedrooms	Estate	1-2 units/acre (21,780 s.f. - 43,560 s.f.)	2.84 (persons/d.u.)

Source: City of Piedmont General Plan Housing Element, January 30, 1994 and Municipal Code (Chapter 17).

¹ One space is required for 150 square feet of floor areas of eating facilities or other similar high intensity uses. One non-tandem parking space is required for each 250 square feet of floor area for retail stores, offices, and other low intensity uses.

² Source of household size is U.S. Census of Population and Housing, 1990, State of California Department of Finance.

NA = Not Applicable
d.u. = dwelling unit
s.f. = square feet
FAR = Floor Area Ratio

proposed development in the neighborhood. Many lots within this designation are non-conforming. This designation provides for development of single family residences with a density of approximately 2 to 4 dwelling units per acre.

Medium - The Medium Residential designation provides for the development of multiple-family housing and accessory structures in harmony with the character of the existing and proposed development in the neighborhood. The multiple-family housing is defined as multiple dwelling units in a single building designed to be occupied by more than one family independently of each other. This designation provides for development of approximately 8 to 20 dwelling units per acre.

Commercial

The commercial designation provides for the development of retail commercial uses, in appropriate areas of the City, to serve the residents of the City on a regular basis. The commercial development includes uses consistent and in harmony with the character of existing and proposed development in the existing commercial areas and adjacent residential areas.

There are two areas of commercial development in the City of Piedmont: the Civic Center area; and the Grand Avenue area. The Civic Center area is a well defined commercial cluster that serves as a small neighborhood convenience center. In 1994, the Civic Center area contained three banks, a gas station, a convenience market, professional offices, and services including a barber and a dentist.

The Grand Avenue area is a continuation of the neighborhood commercial district along Grand Avenue in the City of Oakland. The commercial district extends from the I-580 Freeway in the City of Oakland northward to Linda Avenue. In 1994, the Grand Avenue Area in the City of Piedmont contained one gas station, a hardware store, an auto repair shop, an upholstery shop, and miscellaneous professional offices and services.

Parks and Open Space

The parks and open space designation provides for parks and open space in the City of Piedmont. There are various kinds of parks which serve the citizens of the City of Piedmont. These include regional, community, and neighborhood parks, mini-parks, and park-like areas which provide for particular activities. There are approximately 58.59 acres of parks and playgrounds within the City of Piedmont, some of which are operated by the City of Piedmont, the Piedmont Unified School District, and the City of Oakland. In addition to parks, there are approximately 30.96 acres of open space within the City of Piedmont under public and private ownership.

The Open Space, Recreation, and Conservation Element of this General Plan provides a detailed discussion related to parks and open space in the City of Piedmont. Refer to Table K for a summary of acreage.

Educational Facilities

The educational facilities designation provides the location of existing public schools in the City of Piedmont. The schools, which are operated by the Piedmont Unified School District, make up an excellent school system that contributes greatly to the quality of life in the City. The existing school sites are:

- Piedmont High School located in the Civic Center area on Magnolia at Bonita adjacent to Piedmont Park. The school facilities include classrooms, a library, an auditorium (the Alan Harvey Theater), a student center, a gymnasium, a band room, and a sports field. The Alan Harvey Theater provides the City's largest indoor facility for public meetings and performances. The sports field, the City's largest, consists of a football stadium, running track, and baseball field. The high school houses the school district offices and serves as the site for both the Piedmont Independent Learning High School and the Piedmont Adult School.
- Piedmont Middle School located adjacent to the high school at Magnolia and Hillside. The school facilities include classrooms, a library, a gymnasium, and about .75 of an acre of paved playground.
- Egbert W. Beach School located on Lake at Linda in the western part of the City. The school facilities include classrooms, a library, an auditorium, and about 1.3 acres of paved playground. The site houses special education programs and a Schoolmates Program operated by the City.
- Frank C. Havens School located on Oakland Avenue at Bonita. The school facilities include classrooms, a library, an auditorium (the Ellen Driscoll Playhouse), and about 1.5 acres of paved playground. The site houses a Schoolmates program and adult education programs.
- Wildwood School located on Wildwood Avenue at Portsmouth. The school facilities include classrooms, an auditorium, and about two-thirds of an acre of paved playground. The site houses a Schoolmates program.

Churches

The churches designation provides the location of churches in the City of Piedmont. There are five churches located in the City. They are the First Church of Christ Scientist and Reading Room at 801 Magnolia Avenue, Piedmont Community Church at 400 Highland Avenue, Corpus Christi Catholic Church at 322 Saint James Drive, Piedmont Neighborhood Church at 1300 Grand Avenue, and Zion Lutheran Church at 5201 Park Boulevard. The Corpus Christi Catholic Church and the Zion Lutheran Church provide parochial schools for the elementary school level and the middle school level.

Civic Facilities

The civic facilities designation provides the location of civic facilities in the City of Piedmont. Civic facilities include City Hall, the Veteran's Memorial Building, the Piedmont Community Center (included in the parks and open space acreage), and the Recreation Center. The facilities are collectively referred to as the Civic Center and are centrally located within a two block area on Highland Avenue adjacent to Piedmont Park and a commercial district. All City services are located within this area with the exception of the Public Works Maintenance Department.

Utilities

The utilities designation provides the location of public utilities in the City of Piedmont. Public Utilities that operate in the City of Piedmont include the East Bay Municipal Utility District (EBMUD) and the Pacific Gas and Electric Company (PG&E). EBMUD operates three facilities which include the Piedmont Reservoir and the Estates Pumping Station located on the same site west of Blair Avenue between Scenic Avenue and Harbord Avenue in Oakland; and the Grand Avenue Pumping Station which is located on Grand Avenue. The Public Utilities and Facilities Element of this General Plan provides a detailed discussion related to sewage collection and treatment facilities and solid waste.

GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The following provides the goals, policies, and implementation programs of the Land Use Element. The implementation programs need to be reviewed annually, as required by California Government Code Section 65400. Section 65400 requires municipal planning commissions to render an annual report to their municipal legislatures on the status of the General Plan and progress on its implementation. The responsibility and timeframes for each of the implementation programs are shown in Section A of the Background Document to this General Plan.

GOAL A: Maintain the character of Piedmont as a residential community.

POLICIES

1. Require that the development of undeveloped parcels and vacant lots must be consistent with established density standards.
2. Require that the subdivision of large lots and estates must at a minimum meet density standards and further must be compatible with existing lot sizes.

IMPLEMENTATION PROGRAMS

1. The City may review the zoning ordinance to establish prescriptive standards which reflect established density/intensity standards and guide future development.
2. The City may consider the adoption of a Planned Unit Development and Condominium Ordinance.

GOAL B: Provide for a balance of commercial uses which serve the basic needs of the community.

POLICIES

1. Support established neighborhood commercial areas which serve the limited retail and personal service needs of the residents.
2. Encourage a variety of limited retail and personal service uses within existing neighborhood commercial areas.

3. Support limited office development in existing neighborhood commercial areas which provide basic professional services to the community.
4. Resolve parking problems to the mutual benefit of the commercial establishments, area residents, and the community-at-large.
5. Ensure compatibility between commercial development and the adjacent residential areas.

IMPLEMENTATION PROGRAM

1. The City will review proposed uses to ensure compatibility with the intent and policies of the General Plan.

GOAL C: Preserve and encourage existing public open space as a high priority.

POLICIES

1. Maintain existing parks for both passive and active enjoyment by residents.
2. Encourage the expansion and citizen usage of parklands consistent with established standards for park acreage in relation to population.
3. Coordinate and integrate recreational uses within the City parks.
4. Encourage the educational use of Piedmont Park.

IMPLEMENTATION PROGRAMS

1. The City will encourage the dedication of land for park or open space purposes.
2. The City will investigate alternative funding sources for the acquisition and maintenance of parkland.
3. The City will consider developing a natural/ecological study area and self-guiding study trails at Piedmont Park.

GOAL D: To achieve full utilization of existing and future school facilities and public buildings to the mutual benefit of the City and the School District.

POLICIES

1. Consider potential impacts on School District facilities when making decisions on land use development proposals.
2. Encourage the School District to consider potential impacts on the community, the infrastructure of the facilities, and program changes.
3. Maintain City buildings on a regular basis through department budgets and a Capital Improvement and Maintenance Program.
4. Continue to evaluate availability of high quality convenient and economic library service.

IMPLEMENTATION PROGRAMS

1. The City may review the master agreement between the City and the School District on an annual basis or in the event of significant change to existing programs or policies of either the City or the School District.
2. The City will continue to evaluate library availability and usage.

GOAL E: To coordinate planning efforts with the City of Oakland.

POLICIES

1. The City will coordinate planning activities along the jurisdictional boundary with Oakland to ensure compatibility of land uses in an ongoing planning process.

IMPLEMENTATION PROGRAMS

1. The City will notify the City of Oakland of projects along the boundary with Oakland.
2. The City will request notification of projects in the City of Oakland along their boundary with Piedmont.

INTRODUCTION

The Circulation Element is a required element of the General Plan (California Planning and Zoning Law Section 65302) and is consistent with other elements of the General Plan. The Circulation Element describes the roadway network, public transit, bike routes, pedestrian pathways, sidewalks, and parking. The Circulation Element establishes goals, policies, and implementation programs related to circulation and the transportation system within the City of Piedmont.

Section F of the General Plan Background Document provides information on the existing problems and proposed improvements to the transportation system.

ROADWAY NETWORK

Roadway Widths

The City of Piedmont contains approximately 141 streets with a combined length of about 47 miles. Exhibit 3 provides the roadway widths as determined in 1983 and verified in 1994.

Traffic Volumes

Table F provides the average daily traffic volumes for 1977, 1983, and 1994. The 1994 average daily traffic volumes on major streets are indicated on Exhibit 4. A comparison of traffic counts in 1977, 1983, and 1994 shows that the majority of the segments shown have an increase of 10 percent or greater since 1977.

Street Classification System

Table G sets forth criteria which have been used in developing the functional street classification system. Table H provides the specific street classification criteria by functional type, average daily traffic volume, lane design, and roadway width. Table I provides the design standards for both hill areas and other areas. Based on the above criteria, the functional street classification is delineated on Exhibit 5.

	OVER 35'	ADEQUATE
	30'-35'	MARGINALLY ADEQUATE
	25'-30'	ADEQUATE
	20'-25'	
	UNDER 20'	INADEQUATE



Exhibit 3
ROADWAY WIDTHS

TABLE F
CITY OF PIEDMONT
AVERAGE DAILY TRAFFIC VOLUMES

LOCATION		LOCATION NUMBER IN PREVIOUS GENERAL PLANS	1977	1983	1994
1	Pleasant Valley Avenue at Moraga Avenue in the City of Oakland (at northwest border of City of Piedmont)	1	6,923	*	13,077
2	Grand Avenue between Cambridge Way and Oakland Avenue	4	*	11,066	12,318
3	Oakland Avenue between Grand Avenue and Howard Avenue	6	7,860	8,236	9,565
4	Moraga Avenue between Highland Avenue and Bonita Avenue	11	8,320	8,224	11,333
5	Moraga Avenue between Maxwellton Road and the northeast border to the City of Oakland	13	11,412 (1979)	11,864	13,180
6	Highland Avenue between Moraga Avenue and Park Way	14	7,430	8,038	9,281
7	Highland Avenue between Craig Avenue and Oakland Avenue	15	*	8,463	8,009
8	Highland Avenue between Sierra Avenue and Piedmont Court	16	5,300	5,721	7,625
9	Sheridan Avenue between Lakeview Avenue and Richardson Way	18	*	2,582	2,855

TABLE F (CONT'D)
CITY OF PIEDMONT
AVERAGE DAILY TRAFFIC VOLUMES

LOCATION		LOCATION NUMBER IN PREVIOUS GENERAL PLANS	1977	1983	1994
10	Crocker Avenue between La Salle Avenue and Ashmount Avenue (at southeast border of the City of Piedmont)	20	2,620	2,456	2,489
11	Estates Drive between Park Boulevard and Sandringham Road (at southeast border of the City of Piedmont)	24	1,960	2,254	3,000
12	Trestle Glen Road between Park Boulevard and Cavanaugh Court (at southeast border of the City of Piedmont)	25	1,620	1,676	1,252
13	St. James Drive between Park Boulevard and Croydon Circle (at southeast border of the City of Piedmont)	26	1,040	1,582	1,768
14	La Salle Avenue between Somerset Road and Hampton Road (at northeast border of the City of Piedmont towards Tyson Circle)	28	*	*	2,118
15	Magnolia Avenue between Bonita Avenue and Hillside Avenue	37	*	2,052	2,361
16	Linda Avenue between Kingston Avenue and Lake Avenue	40	*	6,088 (1982)	7,189
17	Boulevard Way between Crofton Avenue and Crofton Avenue (at southwest border of the City of Piedmont)	49	1,500	*	1,609

TABLE F (CONT'D)
CITY OF PIEDMONT
AVERAGE DAILY TRAFFIC VOLUMES

LOCATION		LOCATION NUMBER IN PREVIOUS GENERAL PLANS	1977	1983	1994
18	Maxwelton Road between Nellie Avenue and below Hilltop Crescent (in the City of Oakland)	*	*	*	291
19	Estates Drive between Somerset Road and Hampton Road	*	*	*	2,601
20	Hampton Road between Indian Road and St. James Drive	*	*	*	3,613
21	Crocker Avenue between Wildwood Avenue and Hampton Road	*	*	*	4,136
22	Grand Avenue between Fairview Avenue and Wildwood Avenue (at intersection of Wildwood Avenue)	*	*	*	16,595
23	Oakland Avenue between Bonita Avenue and Highland Avenue	*	*	*	8,316
24	Linda Avenue between Grand Avenue and the Oakland Avenue Bridge	*	*	*	3,791
25	Mountain Avenue between Sharon Avenue and Dormidera Avenue	*	*	*	1,174

Source: City of Piedmont General Plan, 1984 and Traffic Counts, Inc., 1994.

* Not measured in the previous General Plans.



Exhibit 4
1994 AVERAGE DAILY TRAFFIC VOLUMES

TABLE G
CITY OF PIEDMONT
FUNCTIONAL STREET CLASSIFICATION

Functional Type	Definition
Arterial	Primary purpose is to carry traffic between freeways and major collectors or other arterials; serves area larger than Piedmont and thus carries significant amount of through traffic.
Major	Primary purpose is to carry traffic between arterials and minor collectors or other major collectors; serves important local traffic generators.
Minor	Primary purpose is to carry traffic between major collectors and local access Collector streets or other minor collectors; serves local traffic generators; may also serve as bus route.
Local Access	Primary purpose is to provide access to abutting properties.

Source: City of Piedmont General Plan, 1984.

TABLE H
CITY OF PIEDMONT
STREET CLASSIFICATION CRITERIA

Functional Type	Average Daily Traffic Volume	Lane Design	Roadway Width
Arterial	8,000 and over	P4P	50 feet and over
		4	40 feet - 50 feet
		P2P	35 feet - 40 feet
Major Collector	3,000 - 8,000	P4P	50 feet and over
		4	40 feet - 50 feet
		P2P	35 feet - 40 feet
Minor Collector	1,000 - 3,000	P2P	35 feet - 40 feet
		2P	25 feet - 35 feet
Local Access	less than 1,000	P2P	35 feet - 40 feet
		2P	25 feet - 35 feet
		2	20 feet - 25 feet
		1P	15 feet - 10 feet

Source: City of Piedmont General Plan, 1984.

Notes:

P4P = Four vehicular lanes and one parking lane on either side.

P2P = Two vehicular lanes and one parking lane on either side.

2P = Two vehicular lanes and one parking lane.

1P = One vehicular lane and one parking lane.

4 = Four vehicular lanes.

2 = Two vehicular lanes.

1 = One vehicular lane.

TABLE I
CITY OF PIEDMONT
DESIGN STANDARDS

Lane Widths	Lane Design	Roadway Width
Hill Area	1	10-feet - 12-feet
7-foot/10-foot/10-foot/7-foot	1P	17-feet - 19-feet
	2	20-feet - 24-feet
	P1P	24-feet - 26-feet
Other Areas	2P	27-feet - 31-feet
7-foot/12-foot/12-foot/7-foot	P2P	34-feet - 38-feet
	4	40-feet - 48-feet
	P4P	54-feet - 62-feet

Source: City of Piedmont General Plan, 1984.

Notes:

P4P = Four vehicular lanes and one parking lane on either side.

P2P = Two vehicular lanes and one parking lane on either side.

2P = Two vehicular lanes and one parking lane.

1P = One vehicular lane and one parking lane.

4 = Four vehicular lanes.

2 = Two vehicular lanes.

1 = One vehicular lane.

PUBLIC TRANSIT

Existing Routes

The City of Piedmont, along with other East Bay cities, is served by the Alameda/Contra Costa Transit District (AC Transit). Existing lines which serve the City of Piedmont are listed below and their routes are delineated on Exhibit 6.

Line 2 - Highland Avenue to Lakeshore Avenue

Line 3 - Highland Avenue to Blair Avenue

Line 4 - Highland Avenue to Estates Drive

Line 11 - Highland Avenue to 19th Street BART Station

Line 12 - Grand Avenue to MacArthur BART Station

Line 16 - Highland Avenue to Rockridge BART Station

Line C - Piedmont at Highland Avenue to San Francisco (Non-Peak Hours)

Line CH - Piedmont at Oakland Avenue to San Francisco (Peak Hours - Express Bus)

BIKEWAYS

Bikeways can take a variety of forms, but three types are recognized for planning purposes:

- Class I - A completely separated right-of-way designated for the exclusive use of bicycles and pedestrians (bike path);
- Class II - Restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists permitted (bike lane);
- Class III - A right-of-way designated by signs or permanent markings and shared with pedestrians or motorists (bike route).

- ② Highland Avenue to Lakeshore Avenue
- ③ Highland Avenue to Blair Avenue
- ④ Highland Avenue to Estates Drive
- ⑪ Highland Avenue to 19th Street BART Station
- ⑫ Grand Avenue to MacArthur BART Station
- ⑯ Highland Avenue to Rockridge BART Station
- ③ Piedmont at Highland Avenue to San Francisco
- ③H Piedmont at Oakland Avenue to San Francisco



Exhibit 6
BUS ROUTES

**EXHIBIT 6
BUS ROUTES**

There are currently no designated bikeways in the City of Piedmont. Designations are important if the City of Piedmont plans to construct bikeways in the future due to the increase in Federal and State funding sources that are available to cities with an adopted bicycle plan. The City of Piedmont is included on the Alameda County Bicycle Master Plan which was defined in September 1986. The bikeways that are indicated for the City of Piedmont include a portion of Trestle Glen Road and a portion of Park Boulevard, both of which are located on the southernmost border of the City.

PEDESTRIAN PATHWAYS

There are numerous pedestrian pathways in the City of Piedmont. Exhibit 7 provides the general location of the pedestrian pathways. Many are located in the hill areas where they serve as an alternative to sidewalks that follow long winding streets or to no sidewalks at all. These pathways sometimes present problems of surveillance and maintenance. The results of a survey of the pedestrian pathways by the Police Department are summarized in Table J. Problems encountered with pathways are resolved on a case-by-case basis.

The rating system used in the survey was subjective (10 is best, 1 is worst) and based on the following factors:

- Accessibility
- Safety in traversing the pathway (debris and foliage growth)
- Crime statistics
- Aesthetics
- Privacy afforded to the homeowners who border the pathway
- Configuration of homes next to pathway
- Degree to slope or bends in pathway

The Public Works Department is responsible for pathway maintenance. The pathways are maintained on a regular basis. Overgrowth of vegetation from individual properties that encroach upon the pathways are the maintenance responsibility of the homeowner.

SIDEWALKS

Maintenance of sidewalks has been a difficult problem in the City of Piedmont, principally because of the damage done by street trees. Roots of the trees literally lift up and crack many large sections of sidewalk.



Exhibit 7

PEDESTRIAN PATHWAYS

TABLE J

CITY OF PIEDMONT
PEDESTRIAN PATHWAYS

	Location	Length	Visible From Street	Rating*
1.	Between 300-304 Ramona to Park Way	107 feet	Yes	7
2.	Between 61-65 Arroyo to Ramona	106 feet	Yes	10
3.	Between 33-37 Artuna to Monticello	169 feet	Yes	4
4.	Between 68-102 York to Ricardo	272 feet	Yes	2
5.	Between Pala and Scenic	161 feet	Yes	5
6.	Between Scenic and Scenic	163 feet	Yes	2
7.	Between 350-354 Blair to Scenic	281 feet	No	3
8.	Between 622-630 Blair to Pacific	210 feet	No	2
9.	Between 22-27 Piedmont Court to Mountain	89 feet	Yes	6
10.	Between 17-29 Sierra to Mountain	217 feet	Yes	8
11.	Between 129-131 Guilford to Hazel	153 feet	No	4
12.	Between 124-128 Hazel to City Park	102 feet	Yes	6
13.	Between 50-58 Fairview to Nova	249 feet	No	6
14.	Between End of MacKinnon to Arbor	110 feet	No	6
15.	Between 144-200 Magnolia to Palm	246 feet	Yes	5
16.	Between Next to 220 Wildwood to Ranleigh	197 feet	Yes	6
17.	Between 1155-1159 Harvard to alley	110 feet	Yes	8
18.	Between 50-60 St. James Place to Trestle Glen	120 feet	No	8
19.	Adjacent to 253 St. James Drive to Cambrian	104 feet	No	7
20.	Between 244-254 St. James Drive to Sandringham	206 feet	No	6
21.	Between 289-297 St. James Drive to Trestle Glen	151 feet	Yes	8
22.	Between End of Lorita to Monticello	205 feet	No	2

Source: City of Piedmont General Plan, 1984.

* Rating is based on survey by the Police Department

The maintenance and repair of sidewalks is the responsibility of the individual homeowner. The City has taken two steps toward keeping sidewalks in proper repair. First, City ordinances require that when a home is sold or work is performed for which a building permit is required and the work costs more than \$5,000, a sidewalk inspection is required. Any deficient sidewalk must be repaired by the homeowner. Second, the City has commenced its own replacement program where the sidewalk has been damaged due to City street trees.

PARKING

Civic Center Area

Demand for parking in the Civic Center area is very high because of the number and variety of major traffic generators concentrated in a relatively small area. These land uses include: the City Hall, including the fire and police departments; the school district offices, high school, middle school, and an elementary school; the recreation center, including the swim club and tennis courts; the Community Hall located in Piedmont Park; the Veterans Building; several churches; and neighborhood commercial establishments.

The supply of parking spaces is very limited. With few exceptions, there is no off-street parking provided in this area. As a result, all of the demand not accommodated through on-street parking within the area spills over into surrounding residential neighborhoods. Most of the on-street parking is currently restricted in some manner (such as two-hour time limits, reserved for teachers, reserved for City employees, etc.) during the day.

Residential Areas

A number of neighborhoods throughout the City experience some degree of parking congestion. In addition to congestion resulting from the density of development, there are other factors which aggravate the parking problem. These are location of parking on narrow hill streets and in express bus routes.

The neighborhood in the immediate vicinity of the Civic Center area does have restricted parking. Designated spaces have been identified as "Parking by Resident Permit Only" and are enforced between the hours of 6:00 a.m. to 9:00 a.m. and 5:00 p.m. to 8:00 p.m. St. James Drive also has a 4 hour parking restriction due to the narrow street conditions.

LOCAL PUBLIC UTILITIES AND FACILITIES

The Public Utilities and Facilities Element of this General Plan provides a detailed discussion related to local public utilities and facilities.

GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The following provides the goals, policies, and implementation programs of the Circulation Element. The implementation programs need to be reviewed annually, as required by California Government Code Section 65400. Section 65400 requires municipal planning commissions to render an annual report to their municipal legislatures on the status of the General Plan and progress on its implementation. The responsibility and timeframes for each of the implementation programs are shown in Section A of the Background Document to this General Plan.

GOAL A: Ensure safe and efficient circulation pattern and develop circulation system that serves and complements the land use pattern.

POLICIES

1. Continue to evaluate the street functional classification system based on criteria and design standards adopted by the City Council.
2. Improve circulation and safety and attempt to maintain traffic on arterials.

IMPLEMENTATION PROGRAMS

1. The City may conduct a study to redirect traffic to avoid the increases in average daily traffic volumes that occurred from 1984 to 1994.
2. The City will continue to study streets and propose improvements or reclassification of individual streets as necessary.
3. The City may update subdivision ordinances and other regulations as necessary to insure consistency with the street classification system.
4. The City may continue to review the street classification system and may consider the following factors:
 - a. Function of Street
 - b. Street Design
 - c. Roadway Width
 - d. Traffic Volume
 - e. Pedestrian Safety
 - f. Neighborhood Impact
 - g. Surrounding Land Use
 - h. Other Unique Circumstances

5. The City may conduct traffic counts on a periodic basis to monitor changes in traffic flow patterns and determine significant increases.
6. The City may identify traffic volumes and improve traffic controls for circulation and safety. Special attention may be given to:
 - a. Traffic Signal at Highland Avenue and Moraga Avenue.
 - b. Five-way Intersection of Grand Avenue/Rose Avenue/Ronada Avenue/Parkside/Arroyo.
 - c. Intersections of Fairview Avenue/Grand Avenue and Wildwood Avenue/Grand Avenue.
7. The City will establish criteria for implementation of traffic controls on arterials.

GOAL B: Mitigate deficiencies and reduce safety hazards in the existing circulation pattern.

POLICIES

1. Provide adequate and efficient maintenance of streets.
2. Continue remedial action with regard to traffic hazards identified in analysis of police reports or by the public.

IMPLEMENTATION PROGRAMS

1. The City may continue Pavement Management System.
2. The City will establish ongoing, coordinated maintenance of City's streets and sidewalks.
3. The City will evaluate, on a warrant basis consistent with the Traffic Engineering Practice Manual or a modification thereof, proposed changes in the circulation pattern and installation of traffic control devices.
4. The City will coordinate with the City of Oakland as appropriate in the implementation of measures to mitigate or eliminate hazards.
5. The City will monitor potential hazards to sightlines such as vegetation in or near the right-of-way.

6. The City will give priority to public safety over parking in residential areas where concerns are identified.

GOAL C: Provide an optimum level of transit service to meet the needs of residents.

POLICIES

1. Maintain, as a minimum, existing levels of regular and commuter service and recommend improvements as appropriate.
2. Coordinate with AC Transit in resolving problems associated with existing bus routes.
3. Review any proposed route changes to ensure that local streets are capable of carrying bus traffic.

IMPLEMENTATION PROGRAMS

1. The City will support the District's efforts to reduce bus-generated noise.
2. The City may study parking problems around bus stops in residential areas and park and ride sites.

GOAL D: Provide for needs of bicyclists in Piedmont.

POLICIES

1. Piedmont will support routes serving schools and other local activity centers.
2. Bikeways may be considered where safety can be reasonably assured.

IMPLEMENTATION PROGRAMS

1. The City may consider developing a Bike Route Plan with priority on local-serving routes.
2. The City will consider seeking funding for proposed routes and facilities in the Bike Route Plan.

GOAL E: Provide for the safety and convenience of pedestrian circulation.

POLICIES

1. Promote safety of pedestrian traffic through pathways.
2. Minimize adverse impacts on property owners adjacent to pathways.
3. Maintain sidewalks in proper repair to promote health, safety, and welfare.

IMPLEMENTATION PROGRAMS

1. The City will provide for adequate maintenance of pathways.
2. The City will may consider night lighting and determine the need for the provision of additional lighting as needed for safety.
3. The City may update the rating system of the pedestrian pathways.
4. The City will review problems associated with specific pathways as appropriate.
5. The City may conduct a study to determine and assess options for future sidewalk maintenance.

GOAL F: Provide adequate parking for residents, businesses and civic activities in Piedmont.

POLICIES

1. The City may evaluate alternative solutions and/or programs to relieve existing parking congestion.

IMPLEMENTATION PROGRAMS

1. The City will continue to consider expansion and parking control measures in residential areas.
2. The City will continue to enforce parking requirements for residential and commercial areas.

IV. CIRCULATION ELEMENT

3. The City will evaluate alternative solutions to the parking needs in the Civic Center area, which may include:
 - a. Alternative Transportation
 - b. Trip Reduction Programs
 - c. Carpooling
4. The City will work with the School District to implement equitable solutions to the parking needs in the Civic Center area.
5. The City will address the carpooling practice taking place in and around the City and consider a parking program in the areas affected by this practice.
6. The City may evaluate the relationship between auto theft and on-street parking and urge that off-street parking be utilized as a means of mitigating crime and increasing public safety.

V. HOUSING ELEMENT

BOUND UNDER SEPARATE COVER

VI. OPEN SPACE, RECREATION, AND CONSERVATION ELEMENT

INTRODUCTION

The Open Space, Recreation, and Conservation Element addresses the requirement for an open space and conservation elements of a General Plan (California Planning and Zoning Law Section 65302) and is consistent with the other elements of the General Plan. The requirement for a conservation element is to provide for the "... development and utilization of natural resources including water and its hydraulic force, forests, soil, rivers and other waters, harbors, fisheries, wildlife, minerals and other natural resources." Due to the urbanized nature of the City and its vicinity, there are no significant conservation issues as defined by state law. The Element establishes goals, policies, and implementation programs to guide and direct decision making related to open space and recreation.

The Open Space, Recreation, and Conservation Element addresses existing and proposed open space and parks in the City. Section E and Section H of the General Plan Background Document provides information on parks and open space, existing recreational facilities, existing recreation programs, needs and deficiencies, and proposed recreational facilities and capital improvements.

OPEN SPACE

Open space is land area either left in its natural state or developed in a manner that preserves its original character and resources. It is important for urban communities to leave spaces open for the visual, psychological, and health benefits to their citizens, whether for active or passive enjoyment. Within the city limits of Piedmont, there are approximately 91.41 acres of open space under public and private ownership. Exhibit 2, Land Use Plan, provides the location of open space. Table K provides a summary of open space within Piedmont.

PARKS

Types of Parks

There are various kinds of parks which are utilized by Piedmont residents, all serving different functions and needs. They include regional, community, and neighborhood parks, mini-parks, and park-like areas which cater to particular activities.

Regional Parks

As has been the case for a number of years, the City's residents have generally looked outside the City for recreational and amusement facilities usually found in regional parks. Piedmont is located near parkland in Oakland, including Lake Merritt, the Oakland Rose Garden,

VI. OPEN SPACE, RECREATION, AND CONSERVATION ELEMENT

TABLE K
CITY OF PIEDMONT
OPEN SPACE

OPEN SPACES	ACREAGE
Acreage of Parks and Playgrounds	
Recreation Center	2.0
Piedmont Park	15.3
Dracena Park	7.8
Linda Park	1.3
Piedmont Sports Field	2.4
Crocker Park	.99
Hall Fenway	.26
Blair Park (Undeveloped)	8.2
Coaches' Playfield at Moraga Canyon	3.8
Linda Playfield	2.2
Subtotal of City Operated	44.25
Havens School Playground	1.5
Wildwood School Playground	.7
Beach School Playground	2.0
High School Sports Field	4.3
Subtotal of School Operated	8.5
Davie Tennis Stadium	5.0
Rose Garden (portion)	.84
Subtotal of Oakland Operated	5.84
Subtotal	58.59

Continued on next page

VI. OPEN SPACE, RECREATION, AND CONSERVATION ELEMENT

TABLE K (CONT'D)

**CITY OF PIEDMONT
OPEN SPACE**

OPEN SPACES	ACREAGE
Acreage of Smaller Open Space Areas	
Grand Avenue	.70
San Carlos Avenue	.45
Fairview Avenue	.67
St. James Drive (5 Islands)	.80
13 small open space areas in medians	1.44
Subtotal	4.06
Acreage of Other Public and Private Open Space	
City Corporation Yard	7.76
EBMUD Piedmont Reservoir	8.26
Mountain View Cemetery	6.31
Tyson Lake	4.57
Subtotal	26.90
TOTAL	89.55

Source: City of Piedmont, 1994.

VI. OPEN SPACE, RECREATION, AND CONSERVATION ELEMENT

Montclair Park, and Knowland Zoo. In addition to parks in Oakland, the East Bay Regional Park District also includes Lake Temescal Regional Park, Joaquin Miller Park, Redwood Regional Park, and Chabot Regional Park which are only a short distance away and contain hiking trails, picnic areas, and other facilities.

Community Parks

Piedmont Park serves as a community park. Piedmont Park has many features unusual for one park: a community hall which is in continuous use; a play area for children; an Italianate entry, the Excedra, which is on axis with Highland Avenue; a stream; a developed system of trails within a forested glen; a sunny lawn area; a Japanese tea house; and parking. The park is adjacent to major town facilities such as City Hall, Recreation Center, school facilities, and retail and office space. The park and its surroundings embody the historical center of Piedmont and serves as a reference point for City residents.

Neighborhood Park and Mini-Parks

Within the 1.8 square miles comprising the City, there are approximately 58.59 acres of neighborhood parks and playgrounds. A list of the City's parks and playgrounds and the acreage of each appears in Table K. The City currently has six developed parks including Dracena Park, Piedmont Sports Field, Linda Park, Crocker Park, Linda Playfield, and Coaches' Playfield at Moraga Canyon. Blair Park in Moraga Canyon is undeveloped. In some instances, these parks are adjacent to school playgrounds and they function as a unit.

Other Parks and Smaller Open Space Areas

These areas include special recreational facilities such as the Davie Tennis Stadium, the Rose Garden (both owned by Oakland), and other smaller open space areas such as the landscaped circles and strips which are found throughout the City.

City Parks and Facilities

Piedmont Park

This park has some of the attributes of a community park, but not the size. Out of a total of about 15.3 acres, there are about 4 acres of sloping grass areas (unsuitable for team sports), two tennis courts, and a play structure. The remainder is mostly developed natural area. There is also a Tea House and Community Hall Rental facility that receives heavy usage.

VI. OPEN SPACE, RECREATION, AND CONSERVATION ELEMENT

Dracena Park

Dracena Park contains approximately 7.8 acres of developed and undeveloped natural area intended for informal use. The upper level of the park contains two grass areas interspersed with walkways. Two walkways serve to connect the upper and lower portions of the park. The lower level of the park features a play structure and a large level quarry bottom which has been developed into accessible open space with a large grassy area interspersed with trees and surrounded by a gravel pathway. The quarry area is intended for informal use with some scheduled use permitted on a formal basis consistent with the use restrictions developed by the City Council specifically for this area.

Piedmont Sports Field

This 2.4 acre park has a playfield of about one acre developed with a high-quality but small baseball field. The outfield grass is also used for children's football and soccer. The park also has two tennis courts, two tennis practice backboards, a volleyball court, a full-size basketball court, restrooms, and a storage facility.

Recreation Center

This facility contains four lighted tennis courts, basketball courts, a play structure, and a small picnic area. The Piedmont Swim Club operates a swimming pool under a lease agreement. The Recreation Center building itself provides space for administrative offices and indoor activities. The Carriage House is leased to the Dressed Best for Less (DBFL), a school support group.

Crocker Park

This is a landscaped area of approximately .99 of an acre intended primarily for passive recreational activities. The nearby Hall Fenway serves the same function.

Linda Park

This is a linear strip park which serves as a pathway for jogging, walking, and similar activities.

Linda Playfield

This park consists of two play areas, a large grass field, and two tennis courts. There is also a public restroom facility.

VI. OPEN SPACE, RECREATION, AND CONSERVATION ELEMENT

Coaches' Playfield at Moraga Canyon

This approximately 3.8 acre sports field has a baseball facility with 70 foot base paths and a 200 foot outfield along with a 120 foot by 180 foot soccer field. The field is utilized for soccer (for youth under 10 years old), baseball (for youth 12 years old and under), girls softball, and flag football.

VI. OPEN SPACE, RECREATION, AND CONSERVATION ELEMENT

GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The following provides the goals, policies, and implementation programs of the Open Space, Recreation, and Conservation Element. The implementation programs need to be reviewed annually, as required by California Government Code Section 65400. Section 65400 requires municipal planning commissions to render an annual report to their municipal legislatures on the status of the General Plan and progress on its implementation. The responsibility and timeframes for each of the implementation programs are shown in Section A of the Background Document to this General Plan.

GOAL A: To provide Piedmont citizens of all ages with diverse recreational opportunities.

POLICIES

1. Provide for ongoing expansion and upgrading of existing recreational facilities.
2. Provide grass playfields for active sports within the City.

IMPLEMENTATION PROGRAMS

1. The City may develop master plans for Blair Park consistent with the City's current policy on community involvement.

GOAL B: Develop and maintain recreational facilities and programs to meet the citizens needs and desires of the Piedmont citizens.

POLICIES

1. Develop a long range plan for maintenance and capital improvements to existing recreational facilities.
2. Consider supporting the development and maintenance of regional park facilities to meet the recreational needs of Piedmont residents.
3. Encourage the continued use of dog runs.

VI. OPEN SPACE, RECREATION, AND CONSERVATION ELEMENT

4. Seek public and/or private funding for development of facilities and programs and encourage volunteer participation in funding maintenance and upkeep.

IMPLEMENTATION PROGRAMS

1. The City will continue coordination between the Public Works Department and the Recreation Department on the maintenance and use of facilities.
2. The City will inventory facilities and identify required maintenance and potential capital improvements.
3. The City will establish a multi-year plan for maintenance and capital improvements.
4. The City will assess recreational needs and propose/implement programs to meet them.
5. The City will coordinate the implementation of the long range plan through the City's Capital Improvement and Maintenance Program.
6. The City may encourage development of regional park facilities for active and passive activities.
7. The City will continue to evaluate maintenance and designation of dog runs.
8. The City will continue to encourage volunteer funding.
9. Educate residents regarding the use and location of dog runs.

GOAL C: Achieve maximum desirable utilization of all city and school facilities for recreational and educational purposes for all citizens.

POLICIES

1. Maintain a sound working relationship with the Piedmont Unified School District in the coordination, sharing and use of City and District facilities.
2. Explore the development of joint use arrangements for City and School District facilities.
3. The City will review the master use agreement on an annual basis or more frequently in the event of significant change to existing programs or policies of either the City or the School District.

VI. OPEN SPACE, RECREATION, AND CONSERVATION ELEMENT

IMPLEMENTATION PROGRAMS

1. The City will work closely with the School Board and District staff.
2. The City will develop policies for the School District Use of City facilities which address facility maintenance and long-term capital improvement requirements.

INTRODUCTION

The Safety Element is a required element of the General Plan (California Planning and Zoning Law Section 65302) and is consistent with the other elements of the General Plan. The Safety Element establishes goals, policies, and implementation programs to guide and direct decision making related to public safety.

The Safety Element addresses the protection of the community from any unreasonable risks associated with the effects of seismically induced fault displacement (surface rupture), ground shaking, ground failure, and water hazards (tsunami, seiche, and dam failure); slope stability; subsidence and other geologic hazards in the area; flooding; and wildland and urban fires. The Safety Element includes mapping of known seismic and other geologic hazards. It also addresses evacuation routes, peakload water supply requirements, and minimum road widths and clearance around structures as they relate to identified geologic and fire hazards. Section I of the General Plan Background Document provides information on safety related to seismic safety, emergency preparedness, police services, and fire services.

SEISMIC SAFETY

The City of Piedmont lies within the San Andreas Fault system and is .25 of a mile west of the Hayward fault. Although Piedmont lies close to the seismically active Hayward fault, no active faults run through the City. Exhibit 8, Major California Earthquake Faults, provides the location of the faults and epicenters in relationship to the City. Table L, Earthquake Probabilities by Fault, provides information on the expected magnitude and probability of seismic activity on faults in the San Francisco Bay Region.

Geology Hazards

Seismically induced geologic hazards can be divided into four primary categories. They are: fault displacement; ground shaking; ground failure; and water hazards. The potential for structural hazards relate to the severity of the seismic event. These potential hazards are discussed below.

Fault Displacement

Fault displacement is the sudden movement of the ground along the traces of active faults which can occur at the time of an earthquake. Since no known active faults run through the City, the possibility of surface rupture is not high.



Exhibit 8

MAJOR CALIFORNIA EARTHQUAKE FAULTS



TABLE L
EARTHQUAKE PROBABILITIES BY FAULT

FAULT SEGMENT	EXPECTED MAGNITUDE	PROBABILITY 1990 - 2020
San Andreas Fault		
S. Santa Cruz	7	less than 1%
San Francisco	7	23%
North Coast	8	2%
Hayward Fault		
Southern East Bay	7	23%
Northern East Bay	7	28%
Rodgers Creek	7	22%

Source: Probabilities of Large Earthquakes in the San Francisco Bay Region, USGS Circular 1053, 1990.

Ground Shaking

Ground shaking is the major hazard of a seismic event. The main factors affecting the intensity of shaking are: the characteristics of the earthquake (i.e., magnitude, location, direction of movement); the distance from the fault; the type and thickness of soil overlying bedrock; and the geometry of the soil/bedrock contact. Since Piedmont lies immediately adjacent to the active Hayward fault, it will be subject to very high bedrock acceleration and ground shaking from earthquakes originating nearby. Earthquakes originating from more distant faults will produce less intensive shaking.

Ground Failure

Ground failure can occur in several different forms: landsliding; liquefaction; settlement; lurching; and lateral spreading. Landsliding can occur independently or as a result of seismic activity. The City of Piedmont has relatively few landslides. The few instances of slope instability within the City of Piedmont are due largely to man-induced causes such as over-steepened or undercut slopes along roads. During a severe seismic event, some damage may occur to homes placed on fill, especially if the fill was not properly benched, buttressed, and densely compacted. As shown on Exhibit 9, Potential Geologic Hazards, the western portion of the City of Piedmont, underlain by Quaternary alluvial material, is more prone to landslides due to the presence of expansive clays, steep slopes, and poor consolidation.

Liquefaction generally occurs in loose, saturated sandy soils where, during intense shaking, the soils loses its strength and changes into a fluid-like substance not capable of carrying significant loads. Liquefaction presents a potential hazard in only a few areas of the City of Piedmont. Exhibit 9, Potential Geologic Hazards, provides the location of these areas.

Differential settlement is the result of poorly compacted non-uniform soil. This condition only occurs in the City of Piedmont where there are areas of very recent alluvial soils. This only occurs in the few areas of the City that are also subject to liquefaction. Exhibit 9, Potential Geologic Hazards, provides the location of these areas.

Lateral spread and lurching are phenomena which occur in soft materials such as bay muds. These conditions do not exist in the City of Piedmont.

Ground subsidence occurs as a result of prolonged pumping of groundwater, usually for domestic, agricultural, or industrial use. The lowering of the water table can cause the ground to sink. This is not known to occur in Piedmont since water is drawn from reservoirs rather than wells.

SLIDE RISK ZONES

II Medium

III Low

 LIQUEFACTION POTENTIAL

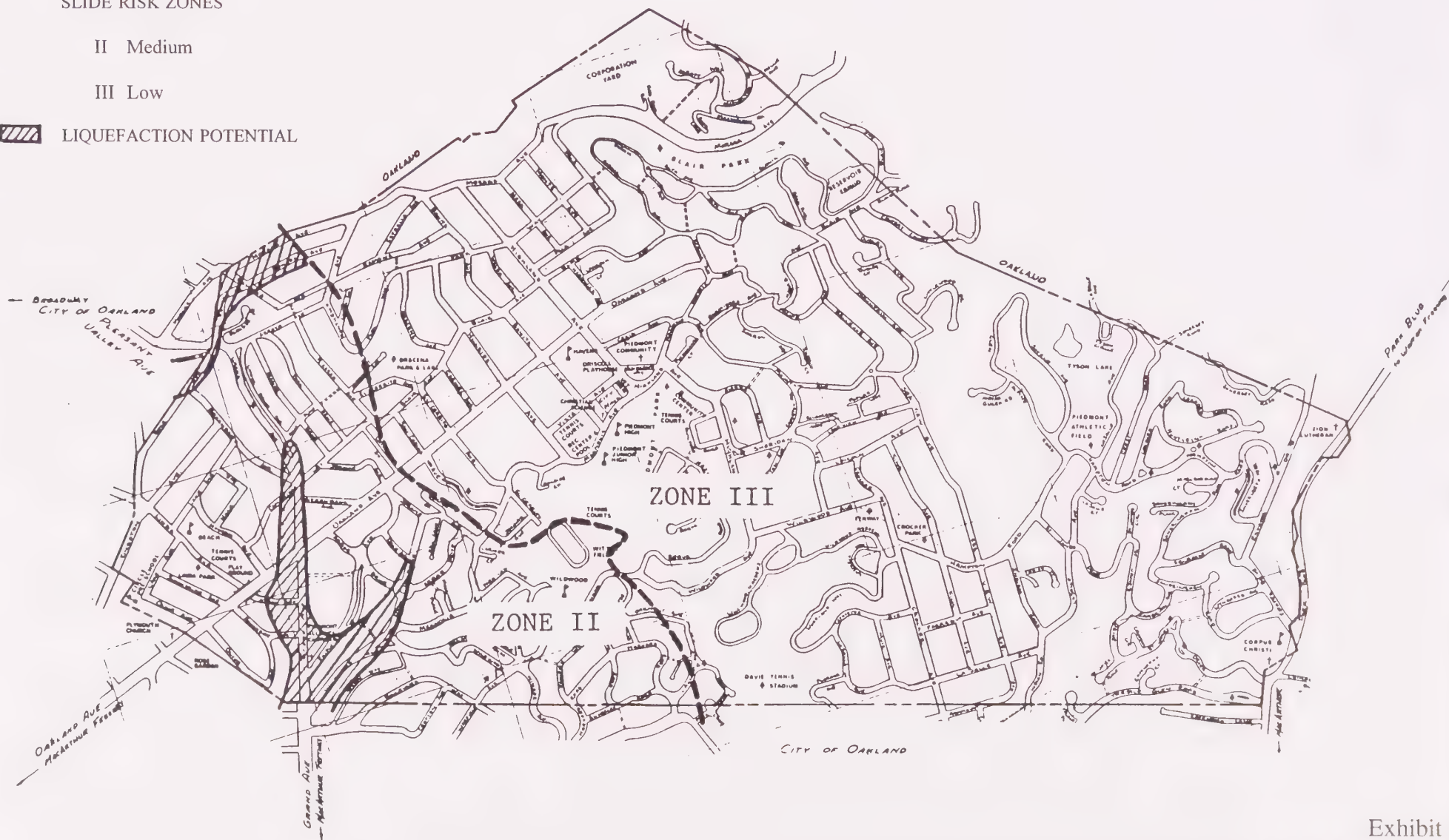


Exhibit 9

POTENTIAL GEOLOGICAL HAZARDS



Water Hazards

The City of Piedmont is not subject to many of the water hazards associated with seismic activity. Tsunamis or sea waves generated by earthquakes would not reach the City due to its elevation and distance from the San Francisco Bay.

Seiches, earthquake generated waves within enclosed bodies of water, have a high potential of damaging property near the shore. The bodies of water which could be of concern to Piedmont (Estates Reservoir, Piedmont Reservoir, and Dingee Reservoir) are all covered and pose no threat due to seiches. Tyson Lake, which is small with steep banks, poses only a slight hazard in the event of a seiche.

Flooding can occur as a result of seismic activity or excess rainfall. Flooding due to an earthquake could occur from the sudden release of water due to structural failure of the reservoirs or Tyson dam. The flood path for the Estates Reservoir would be through Indian Gulch and onto La Salle Avenue - Indian Road. The flood path for Piedmont Reservoir and Dingee Reservoir would be through Moraga Canyon. Exhibit 10, Potential Water Hazards, provides the general path of potential flooding.

The potential for flooding from excess rainfall is minimal. The City of Piedmont is in Federal Emergency Management Agency (FEMA) designated Zone C which is defined as an area of minimal flood hazard. The natural and man-made storm drainage facilities are capable of accommodating most storm conditions. During severe storms, localized flooding can occur. There is also a 48" feeder pipe owned by East Bay Municipal Utility District (EBMUD) that crosses Piedmont along Arroyo Avenue, Ricardo Avenue, El Cerrito Avenue, Wittier Field, Prospect Road, and Harvard Road. A rupture of this size pipe could pose a flooding problem.

Structural Hazards

Structural hazards due to an earthquake can result in falling debris and partial or total collapse of buildings. A single-story wood frame residential structure, which is not constructed directly over a fault trace, is the most earthquake-resistant structure. In addition, structures built on firm bedrock have less damage. The City of Piedmont is a residential community of mainly 1 to 3 story wood frame residential structures constructed on relatively stable materials. Seismic dangers related to structural hazards are anticipated to be low.

FIRE HAZARDS

In the City of Piedmont, the proximity of urban housing to a "synthetic wildland" of native and introduced plants presents the potential for fire hazards. The most serious threat is during the hot, dry season from May to October as evidenced by the Oakland/Berkeley Firestorm in October, 1991.

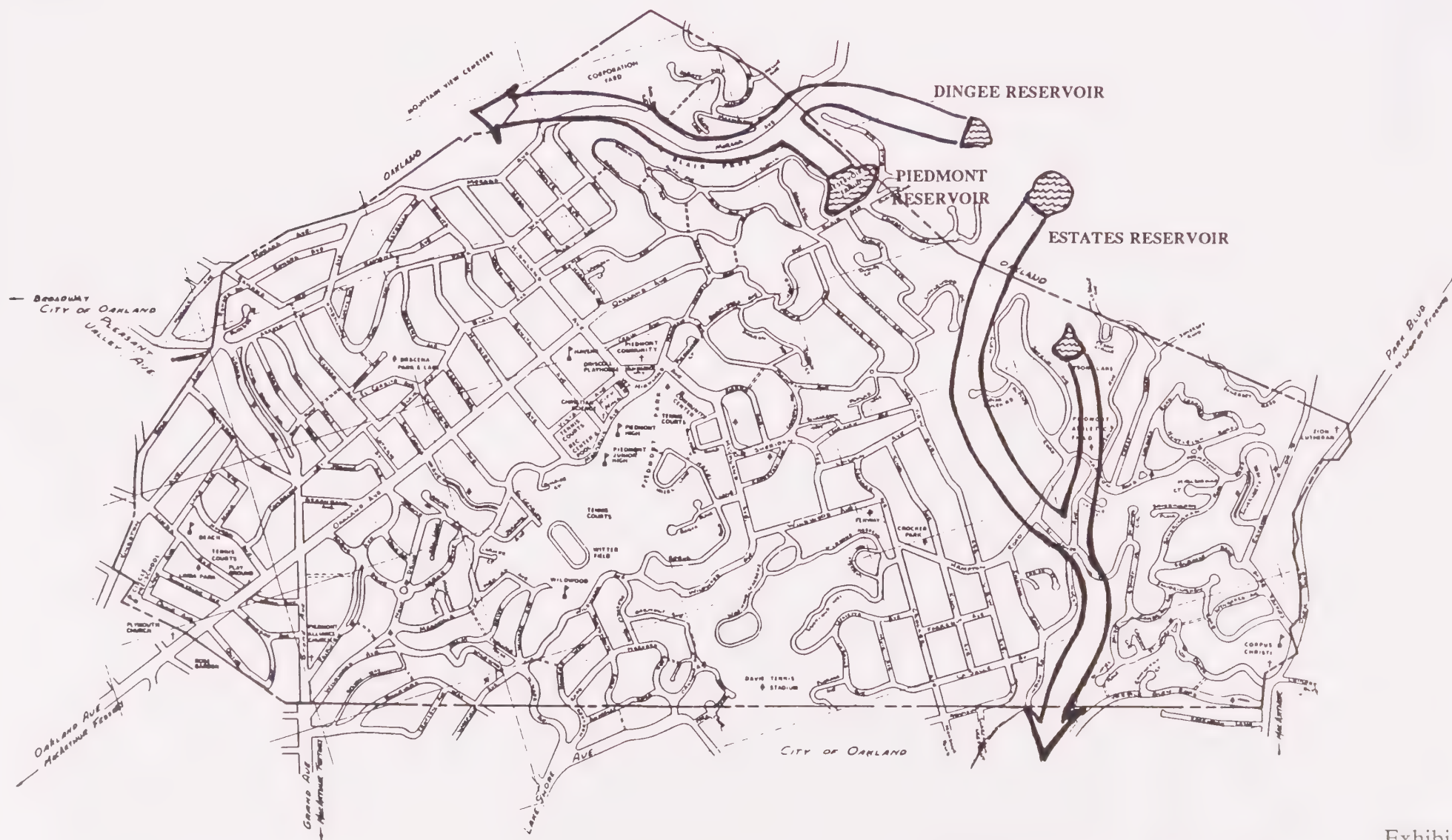
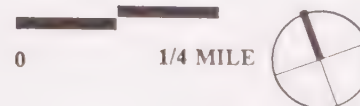


Exhibit 10

POTENTIAL WATER HAZARDS



EMERGENCY PREPAREDNESS AND RESPONSE

The following provides a discussion of the existing Emergency Operations Plan, evacuation routes, peakload water supply requirements, minimum road widths, and clearance around structures as they relate to geologic and fire hazards. In addition, it provides a discussion of the Oakland/Piedmont Mutual Response Areas Agreement.

Emergency Operations Plan

Since World War II, Piedmont has had an Emergency Operations Plan, called the Multi-hazard Functional Plan, for dealing with both wartime and peacetime emergencies. Peacetime emergencies include: earthquake, flood, dam failure, fire, major accident (transportation or industrial), hazardous material spill, civil disturbance, storm, epidemic, and critical pollution. The purpose of the Plan is to:

- Provide a basis for the conduct and coordination of operations and the management of critical resources during emergencies;
- Make widely known the authority, responsibilities, functions and operations of civil government during emergencies;
- Provide a means of incorporating into the City's emergency organization any non-governmental agencies and organizations having resources necessary to meet unforeseen needs; and
- Establish emergency "disaster containers" of medical supplies, shelter, water, food, rescue and communications equipment.

The plan becomes operative under any of the following conditions:

- Automatically by the existence of a state of war emergency;
- Upon the proclamation of a state of emergency by the Governor; and
- On the order of the City Council, Mayor or City Administrator, who serves as Director of Emergency Services, when an actual or threatened local emergency has been proclaimed.

Evacuation Routes

There are no specific designated evacuation routes in the City of Piedmont. In the event of an emergency, the designation of the evacuation routes would be the responsibility of the

Police Chief and the Public Works Director. The designation of evacuation routes would be based on the nature of the emergency and the direction of the movement of the threat.

Peakload Water Supply Requirements

The peakload water supply requirements are not adequate in several areas in the City of Piedmont.

Minimum Road Widths

The minimum road width required for fire and emergency vehicles is 12 feet. Please refer to Section F of the General Plan Background Document for additional information.

Clearance Around Structures

Property owners are encouraged to maintain a reasonable "defensible space" clearance of flammable vegetative materials around structures.

Oakland/Piedmont Mutual Response Areas Agreement

In November 1992, the City of Piedmont and the City of Oakland entered into a Mutual Response Areas (MRA) Agreement. The Agreement becomes effective when the "fire season" is declared by the Fire Chiefs of Piedmont and Oakland or when the Fire Chiefs jointly declare critical weather conditions. The Agreement applies to the MRAs known as Montclair, Piedmont Pines, Broadway Terrace, Trestle Glen, Estates Drive, Maxwelton Road and Rose Avenue areas.

GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The following provides the goals, policies, and implementation programs of the Safety Element. The implementation programs need to be reviewed annually, as required by California Government Code Section 65400. Section 65400 requires municipal planning commissions to render an annual report to their municipal legislatures on the status of the General Plan and progress on its implementation. The responsibility and timeframes for each of the implementation programs are shown in Section A of the Background Document to this General Plan.

GOAL A: To minimize the loss of life, injuries, and damage to persons and property resulting from natural or manmade disasters.

POLICIES

1. Establish and communicate programs through appropriate governmental agencies and citizen volunteer groups to mitigate the impacts of seismic and geologic hazards on existing buildings and structures with due consideration for property rights and investments of community resources.
2. Provide available seismic safety and fire safety information to citizens and property owners by the City Departments and citizen volunteer groups in conjunction with other governmental agencies.
3. Identify structures highly susceptible to seismic damage.
4. Seek to mitigate structural hazards in city buildings based on a determination of the severity of risk and type of occupancy.

IMPLEMENTATION PROGRAMS

1. The City may require that all public buildings and privately-owned but publicly-used structures obtain qualitative seismic evaluations.
2. The City may undertake a program to mitigate seismic deficiencies described in such seismic evaluation reports as have been prepared. Such mitigation shall be consistent with the financial ability to obtain such work as determined by the City Council in the annual City budget.

VII. SAFETY ELEMENT

- 2a. The City will encourage the mitigation of seismic deficiencies in existing residential structures, such mitigation may address bolting of structures to their foundations, lateral bracing of cripple walls between the foundation and first floor of all structures and bracing of water heaters.
3. The City will continue to require that all new construction be up to the current Municipal Code (i.e., rehabilitation, remodel, new construction).
4. The City, through its staff and citizen volunteer groups, and in conjunction with other governmental agencies, will continue its programs to provide seismic safety and fire safety information to citizens and property owners.
5. The City may continue to utilize the Fire Department and citizen volunteers to disseminate information on safety issues and may designate additional groups or methods for the dissemination of information.
6. The City will continue to evaluate fire hazards in the community.
7. The City will explore the establishment of a volunteer Fire Department reserve program to "double" the City's fire fighting personnel in times of disaster.
8. The City will continue the program that provides for the structural evaluation and posting of public and private structures within the community following a significant seismic event as determined by the City Administrator.

GOAL B: To recognize natural environmental hazards in planning for the City's future development.

POLICIES

1. Restrict construction on known faults and/or active landslides unless slide is stabilized on the basis of a soils and geologic investigation.
2. Require that development in areas with a potentially high risk of fault displacement, slope instability, liquefaction, differential settlement, and/or flooding occur only if the owner, at his/her own expense, can establish through soils and geologic investigation prepared by a qualified engineer that a structure can be located there without danger to life or property.
3. The City will make reasonable efforts to promote design and construction of all new structures to resist high levels of seismic forces.

IMPLEMENTATION PROGRAM

1. The City will continue to review the City's building code and ordinance regulating development to ensure they reflect currently accepted seismic design and standards as specified in the Uniform Building Code.

GOAL C: To maintain a high level of emergency and disaster response capacity.

POLICIES

1. Develop, implement, and maintain an Emergency Operations Plan and Emergency Operations Center.
2. Provide structures to accommodate activities and equipment related to public safety, especially police, fire, and communication services, to ensure continued operation and availability of service after an earthquake.
3. Promote volunteer citizen participation in emergency and disaster response.
4. Make reasonable efforts to comply with the requirements of the Federal Emergency Management Agency (FEMA).

IMPLEMENTATION PROGRAMS

1. The City may establish a plan which will encourage cooperation between City departments and volunteers in the event of emergency and disaster response.
2. The City may continue to implement programs through its Department staff and citizen volunteer groups that train individual citizens and neighborhood groups to participate in emergency response and give volunteer assistance in a disaster.
3. The City will make reasonable efforts to educate City staff.
4. The City will coordinate the education of volunteers and citizens.

GOAL D: To maintain a response plan at a high state of readiness.

POLICIES

1. Provide emergency equipment and centers or "disaster containers" to assist professionals and volunteers in responding in an emergency.

IMPLEMENTATION PROGRAMS

1. The City will continue to advise the public of emergency preparedness planning.
2. The City will implement programs that inform citizens of procedures.
3. The City will take reasonable steps to acquire and maintain equipment necessary to maintain a high level of readiness for emergencies.
4. The City will maintain such disaster containers and Emergency Operation Centers to retain a high state of readiness.
5. The City will provide continuing education and training for the professional emergency personnel to maintain them in a high state of readiness.
6. The City will establish a program to recruit volunteers to staff emergency centers.

GOAL E: Provide Piedmont residents with the optimum level of public safety services and provide adequate staffing levels for the wide variety of police services including: traffic law enforcement; crime investigation; crime prevention; Senior Citizen contact; and training of personnel.

POLICIES

1. Maintain quick (three minute or less on emergency calls) response time to citizens calls for aid and help.
2. Maintain rigorous enforcement of all traffic laws for traffic and pedestrian safety.
3. Evaluate continued use of the canine program.
4. Encourage citizen participation in crime prevention programs.

5. Continue and expand the level of juvenile services.
6. Encourage respect for and the maintenance of public facilities.
7. Maintain required equipment at a high state of reliability.
8. Maintain high level of police reserve program professionalism.

IMPLEMENTATION PROGRAMS

1. The City will continue implementation and evaluation of the canine program.
2. The City will publicize the citizen participation programs.
3. The City may continue support of the Minor Offenders Program.
4. The City may expand school outreach programs and interaction with the department.

GOAL F: Provide residents and businesses maximum fire protection.

POLICIES

1. Maintain at least Class III or better insurance rating of the community.
2. Ensure adequate equipment access via city and/or private roads.
3. Encourage citizen education and participation in fire prevention.
4. Pursue elimination of fire hazards.
5. Work in cooperation with State, County and adjacent cities in dealing with the transport of hazardous materials on City streets.
6. Encourage citizen education of proper disposal of hazardous materials.
7. Maintain required equipment at a high state of reliability.
8. The City may continue to support Mutual Response Areas (MRA) Agreement with the City of Oakland.

9. Maintain high level of training and preparedness of the department.

IMPLEMENTATION PROGRAMS

1. The City will evaluate cost/benefit of improving insurance rating.
2. The City will maintain an adequate number of accessible and well-identified fire hydrants.
3. The City will eliminate narrow access roads and constraints where feasible.
4. The City will enforce City ordinances when reviewing development proposals.
5. The City will promote availability of the residential inspection program by the Fire Department related to fire hazards.

GOAL G: Provide a high level and quality emergency medical services to the citizens.

POLICIES

1. The City will periodically review the existing ambulance and emergency medical services.
2. Maintain as high a level of emergency medical services as effective and economically feasible.

IMPLEMENTATION PROGRAM

1. The City will continually evaluate the means and economics of providing paramedic services.

INTRODUCTION

The Noise Element is a required element of the General Plan (California Planning and Zoning Law Section 65302) and is consistent with other elements of the General Plan. It describes existing noise levels and projected noise levels in the City of Piedmont. The Noise Element establishes goals, policies, and implementation programs related to noise in the City of Piedmont.

Section J of the General Plan Background Document provides information on fundamental concepts of community noise and technical information related to existing and projected noise levels.

In 1974, the City of Piedmont adopted a Noise Element. In 1994, a new noise measurement program was conducted at locations throughout the City of Piedmont by Charles M. Salter Associates, Inc. The results of the 1994 noise measurement program is provided at the end of Section J of the General Plan Background Document. The following provides a summary of community noise concepts and the findings of the noise analyses conducted in 1974 and 1994.

The City of Piedmont's size, location, and topography produce a noise situation unique for a city of its relatively urban situation. The City of Piedmont encompasses approximately 1.8 square miles and does not have any freeways, airports, railways, or rapid transit systems within the City's boundaries. The major transportation facilities, Interstate Freeway 580 and State Highways 24 and 13, are outside of the City limits at a relative distance related to noise. Because of this, the studies of noise levels within the City of Piedmont have been directed at noise originating locally, within the City boundaries, or the adjacent areas in the City of Oakland.

EXISTING NOISE IN THE CITY OF PIEDMONT

With the exception of Interstate Freeway 580, which affects some portions at the west end of the City of Piedmont, local vehicle traffic is the primary source of noise within the City of Piedmont. In 1974, noise contours were developed by Bolt, Beranek and Newman (BBN) using a combination of actual field measurements and analytical modeling techniques. The field measurements included tape recordings of representative samples at five locations for statistical analysis and short-term direct measurements at fourteen additional locations. BBN used noise modeling techniques which took into account such factors as traffic flow rate, population density, and transit bus schedules to supplement the measured data.

In 1994, a new noise measurement program was conducted by Charles M. Salter Associates, Inc. for seven locations throughout the City of Piedmont. Continuous and simultaneous or

"spot" measurements were conducted at two of the locations. The continuous noise monitoring employed digital programmable sound level meters which indicated the A-weighted sound level each half second continuously throughout a 24-hour period. The sound level meters were programmed to provide hourly statistical summaries throughout the recording period. The L_{eq} values (also called hourly noise levels or HNLs) were used to compute the day-night sound level (DNL or L_{dn}) 24-hour measures.

Shorter duration measurements were also conducted for five additional measurement positions. The short-term statistical results were used to compute the estimate of the 24-hour DNL value for each of the locations.

Table M provides the noise measurement results for the two continuous and simultaneous measurement locations and the noise measurement results for the five shorter duration measurement locations. Exhibit 11 provides the noise contours. Based on the conclusions of the 1994 noise measurement program, there is very little change in the noise exposure environment from the 1974 Noise Element.

Exposure to noise in the City of Piedmont depends almost directly upon proximity to one of the local main traffic arteries, which include Grand Avenue, Highland Avenue, Moraga Avenue, Oakland Avenue, or Park Boulevard. Residences or locations facing these roads experience the greatest noise levels while the noise levels at locations only half a block away are significantly lower. The lower levels are due both to the normal loss in noise level with distance from the source, and the noise barrier provided by the first row of housing or buildings adjacent to these roads.

Locations roughly 500 feet or more from any of the major arteries have low noise levels for a community of Piedmont's population density. The relatively hilly terrain of the City of Piedmont provides natural noise shielding for these areas. In general, the noise from local residential traffic does not intrude and L_{dn} noise levels are 10 to 15 decibels lower than normal. Certain regions of the City of Piedmont within canyons or ravines have an even quieter environment as a result of this shielding effect.

PROJECTED NOISE LEVELS IN THE CITY OF PIEDMONT

There is no projected change in the noise levels in the community based on the assumptions provided in the Land Use Element and the Circulation Element of this General Plan.

TABLE M
CITY OF PIEDMONT
NOISE MEASUREMENT RESULTS

	LOCATION	L ₁₀	L ₃₃	L ₅₀	L ₉₀	L _{eq}	DNL ¹
A	Oakland Avenue between Monte Vista Avenue and Olive Avenue	(see data report provided at end of Appendix J)					63
B	Moraga Avenue between Ramona Avenue and Monticello Avenue	(see data report provided at end of Appendix J)					66
C	Highland Avenue between Moraga Avenue and Park Way	67	64	62	50	65	69 ²
D	Magnolia Avenue between Bonita Avenue and Hillside Avenue	62	57	53	48	58	62 ²
E	Grand Avenue between Cambridge Avenue and Oakland Avenue	68	62	60	51	65	71 ²
F	Linda Avenue between Kingston Avenue and Lake Avenue	62	57	53	46	59	65 ²
G	Trestle Glen Road between Park Boulevard and Cavanaugh Court	54	49	46	40	52	56 ²

Source: Charles M. Salter, Inc., 1994.

L₁₀ = Sound level exceeded 10 percent of the time.

L₃₃ = Sound level exceeded 33 percent of the time.

L₅₀ = Sound level exceeded 50 percent of the time.

L₉₀ = Sound level exceeded 90 percent of the time.

L_{eq} = Equivalent sound level.

DNL = Day-night sound level or L_{dn}.

¹ DNL is computed identically to CNEL, except the CNEL includes the addition of a 5-dB penalty for evening (i.e. 7:00 p.m. to 10:00 p.m.)

² Estimated 24-hour values from same recordings.

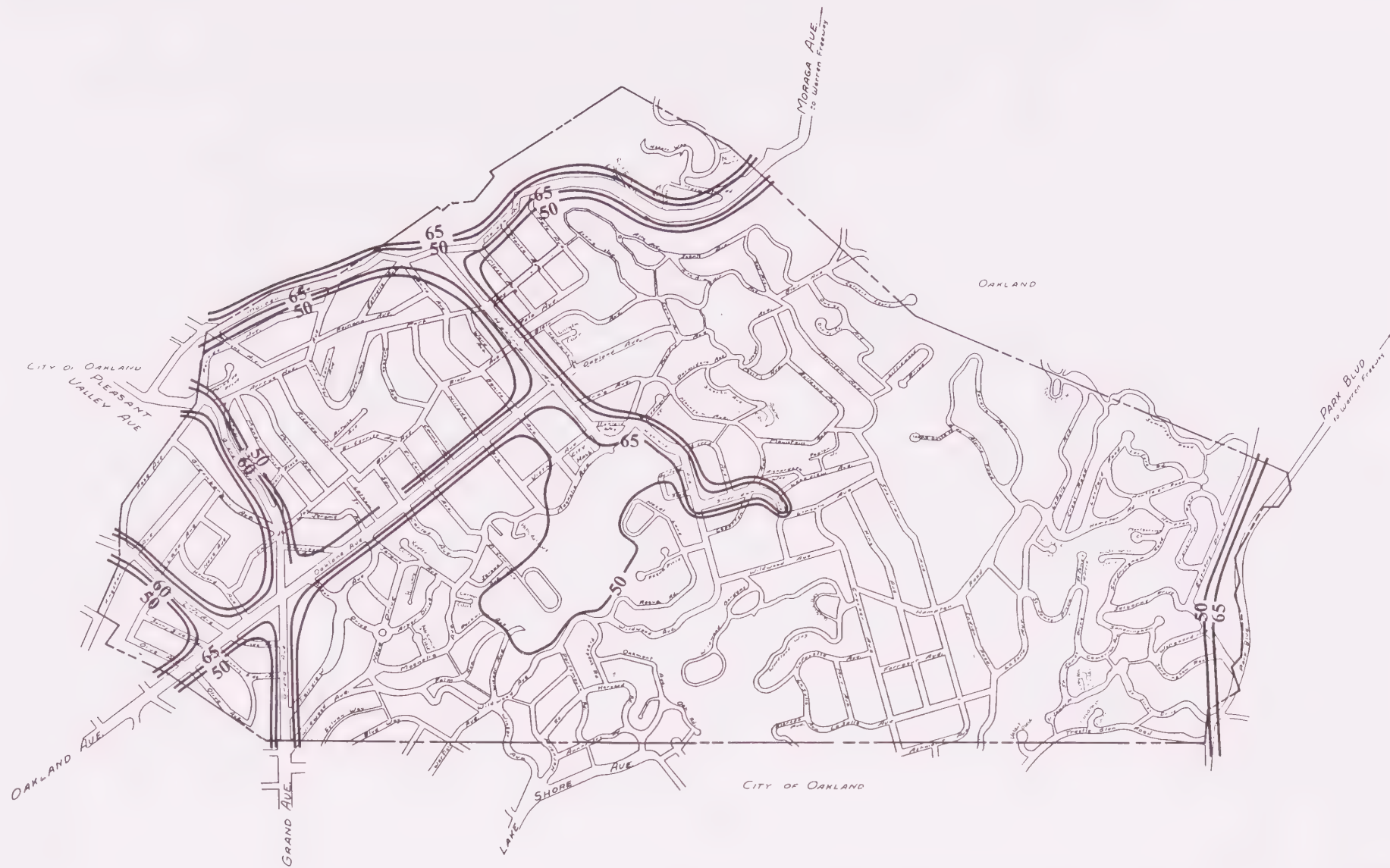


Exhibit 11
NOISE CONTOURS IN CITY OF PIEDMONT

GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The following provides the goals, policies, and implementation programs of the Noise Element. The implementation programs need to be reviewed annually, as required by California Government Code Section 65400. Section 65400 requires municipal planning commissions to render an annual report to their municipal legislatures on the status of the General Plan and progress on its implementation. The responsibility and timeframes for each of the implementation programs are shown in Section A of the Background Document to this General Plan.

GOAL A: To maintain the relatively quiet character of the City of Piedmont.

POLICIES

1. Minimize the levels of noise from motor vehicle traffic.
2. Enforce the California Motor Vehicle Code regulations on maximum allowable noise levels for cars and trucks and motorcycles.
3. Discourage and avoid construction of new state highways passing through or in close proximity to the City of Piedmont.
4. Periodically evaluate traffic volume and flow patterns within the City of Piedmont for possible adverse acoustical effects.

IMPLEMENTATION PROGRAMS

1. The City will continue support for Alameda/Contra Costa Transit District in reducing bus-generated noise.
2. The City will enforce the reduction of noise from mechanical equipment in the community.
3. The City will enforce the reduction of any loud, unnecessary, or unusual noise which disturbs any neighboring residence.

GOAL B: To minimize the impact of stationary or non-vehicular noise upon residents of the community.

POLICIES

1. Endeavor to remove or reduce sources of noise which due to their high levels cause a regular nuisance or detrimental effects among the citizenry.
2. Seek to reduce or eliminate noise emanating from outside City limits that detrimentally affects the City of Piedmont residents.

IMPLEMENTATION PROGRAMS

1. The City will maintain and enforce the noise ordinance which contains standards addressing various specific noise sources.
2. The City will support reduction of noise from activities/events in the Rose Garden.
3. The City will enforce the prohibition of noise due to: construction and demolition between the hours of 6:00 p.m. and 8:00 a.m. Sunday evening through Saturday morning and between the hours of 6:00 p.m. and 9:00 a.m. Saturday evening through Sunday morning; and gasoline-powered blowers.

GOAL C: To provide for the compatibility of sports fields with the surrounding residential areas.

POLICIES

1. Endeavor to mitigate noise levels at the sports fields.

IMPLEMENTATION PROGRAMS

1. The City will define and enforce hours of operation for Piedmont Sports Field, Coaches' Playfield at Moraga Canyon, Linda Playfield, and Dracena Park.
2. The City may monitor noise levels from special events at sports fields.
3. The City will define hours of operation for future City sports facilities.

INTRODUCTION

The Community Design Element, although not a required element of the General Plan, establishes goals, policies, and implementation programs to guide and direct decision making related to community design and appearance. The Community Design Element addresses historic preservation, design review, sign regulations, subdivision regulations, street trees, and City cleanliness. Section K of the General Plan Background Document provides information related to each of these areas.

GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The following provides the goals, policies, and implementation programs of the Community Design Element. The implementation programs need to be reviewed annually, as required by California Government Code Section 65400. Section 65400 requires municipal planning commissions to render an annual report to their municipal legislatures on the status of the General Plan and progress on its implementation. The responsibility and timeframes for each of the implementation programs are shown in Section A of the Background Document to this General Plan.

GOAL A: Preserve historic and architectural resources within the community.

POLICIES

1. Identify the historic and architectural resources of the community.
2. Recognize historic and architectural landmarks as a special category of land use.
3. Avoid undue restrictions on private property owners.
4. Where economically necessary, provide building and zoning incentives to encourage developments that incorporate historic properties into projects or adapt them to new use without damaging the integrity of those properties.

IMPLEMENTATION PROGRAM

1. The City may appoint an ad hoc citizens committee to conduct a preliminary survey and inventory of historic and architectural resources and make recommendations to the City Council.

GOAL B: Preserve and enhance the aesthetic character of Piedmont.

POLICIES

1. Maintain the design review procedure.
2. Discourage the obstruction of viewsheds by man-made devices, such as antennas, TV dishes, and wind generators.

IX. COMMUNITY DESIGN ELEMENT

3. Maintain the enforcement of the viewshed ordinance.
4. Encourage future development and redevelopment in harmony with the character of the existing development in the neighborhood.

IMPLEMENTATION PROGRAMS

1. The City may review of current standards and criteria in the design review ordinance.
2. The City may review the Floor Area Ratio and setback requirements in the Zoning Ordinance.

GOAL C: Improve consistency and appearance of signs.

POLICIES

1. Require cohesiveness, overall design balance and consistency of signs within each of the following sign groups: a) commercial signs; b) informative signs; c) traffic flow signs; and d) street signs.

IMPLEMENTATION PROGRAM

1. The City may develop design review guidelines for signs.

GOAL D: Maintain subdivision regulations which enhance the residential character of Piedmont.

POLICIES

1. Review the current regulations to ensure an orderly planning process and consistency with applicable State subdivision law.
2. Subdivisions should be designed and implemented in a manner that fully recognizes the character and aesthetics of the community while observing the rights of the property owners.
3. Encourage the developer to provide for a lot layout and improvements which ensure minimum disturbance to existing trees and maximum passive solar opportunities.

IX. COMMUNITY DESIGN ELEMENT

4. Require that all utilities be placed underground whenever feasible.
5. Ensure proper fire and police access in the layout of public and private streets.
6. Preserve private open space through the use of design solutions.
7. Minimize adverse visual impacts on surrounding properties and protect solar access.
8. Ensure improvements meet current City Standards (e.g., sidewalks).

IMPLEMENTATION PROGRAM

1. The City will implement Chapter 19 of the City Code.

GOAL E: Maintain City owned trees in Piedmont.

POLICIES

1. Recognize the presence of City owned trees as a vital community resource which provides the community with beauty, character, value, and continuity of street appearance.

IMPLEMENTATION PROGRAM

1. The City will support the tree planting and maintenance program.
2. The City may consider developing and adopting a tree ordinance.

GOAL F: Maintain cleanliness of the City to enhance the residential character of Piedmont.

POLICIES

1. Maintain existing City programs on cleanliness and litter control.

IMPLEMENTATION PROGRAMS

1. The City will determine if needs are being met by these programs or if additional programs are required.
2. The City will review the existing street sweeping schedule annually and where prudent, make amendments as are deemed appropriate.
3. The City will strive to improve enforcement of litter control ordinances.
4. The City may continue regular community trash pick up days.

X. PUBLIC UTILITIES AND FACILITIES ELEMENT

INTRODUCTION

The Public Utilities and Facilities Element is provided to respond to requirements of the Land Use Element and Transportation Element of the General Plan (California Planning and Zoning Law Section 65302) and is consistent with those elements of the General Plan. The Public Utilities and Facilities Element provides information on water supply and distribution, sewage collection and treatment, storm water system, natural gas and electricity, underground utilities, street lighting, and solid waste. The Public Utilities and Facilities Element establishes goals, policies, and implementation programs related to utilities and facilities. Section L of the General Plan Background Document provides additional information on public utilities and facilities.

WATER SUPPLY AND DISTRIBUTION

The East Bay Municipal Utility District (EBMUD) owns and maintains the water distribution system in the City of Piedmont. The City of Piedmont is supplied through a distribution system consisting of 6-inch to 8-inch diameter steel pipes which are underground and generally in the street right-of-ways. The primary reservoir is the one at the top of Blair Avenue, referred to as Piedmont Reservoir (60 acre-feet capacity). The reservoir located on McAndrews Avenue in Oakland is referred to as the Dingee Reservoir (30 acre-feet capacity) and the other reservoir is located on Estates Drive in Oakland and is referred to as the Estates Reservoir (54 acre-feet capacity).

The Insurance Services Office has given Piedmont their highest Class I rating for the water supply component of the rating scale. The water supply system, although adequate for fire suppression purposes in most of the City, has specific areas where substandard volumes are available. To merit the Class I status, the ideal volume standard of 1,500 gallons per minute is available at the bulk of the City's approximately 225 hydrants.

SEWAGE COLLECTION AND TREATMENT

The City of Piedmont owns and maintains the sewage collection system. The treatment is contracted with EBMUD. The regional treatment plant is located in West Oakland with ultimate disposal to San Francisco Bay. The sewage treatment plant capacity has been designed and constructed for population and employment growth well above current levels. Design capacity is 41 percent greater than the existing dry weather flow.

The City of Piedmont inherited the sewage collection system from the old Piedmont Sanitary District. There are 47 miles of collection system, ranging in size from 6-inch to 15-inch diameter pipe. The City of Piedmont is in a 20-year program for replacement of pipes within the network.

STORM SEWER SYSTEM

This system is owned and maintained by the City of Piedmont. Prior to the 1940's, the storm drain and the sanitary sewer systems were one. With completion of the large EBMUD treatment plant (near the San Francisco Bay Bridge), all cities serviced by this plant were required to separate the systems. Although this has been accomplished, in the City of Piedmont there are still some resident storm drains connected to the sanitary sewer system. Programs are now underway to identify these improper connections and have them disconnected.

The storm sewer system relies in numerous instances on natural drainage courses to connect various sections. Streets (curbs and gutters) also function as part of the drainage system. Because of this surface drainage and the runoff from individual lots, adequate erosion control measures are necessary to ensure soil stability and downstream water quality. The 1987 Amendment to the Clean Water Act requires adoption of plans and programs for storm water management. In March 1992, the City of Piedmont adopted Ordinance 535 for storm water management and drainage control and complies with the Federal Clean Water Act.

NATURAL GAS AND ELECTRICITY

Pacific Gas and Electric (PG&E) is the supplier of natural gas and electricity to the City of Piedmont under a franchise agreement with the City.

Household Natural Gas

The City is supplied through a loop network of underground lines, which are normally in the street right-of-way. The lines vary in size from 2-inches to 10-inches. Lines into individual homes are typically 3/4-inch, though some lines may be 1-1/2-inch, depending on the load demand of the individual residence or business. Under the franchise agreement, PG&E must supply the needs of the residents and businesses of the City.

Electricity

PG&E installs and maintains the transmission lines and the subsequent distribution lines throughout the City of Piedmont. Underground services installed prior to 1967 are owned and maintained by the customer. In some areas, undergrounding of the distribution lines has already occurred. If there should be a subdivision of five or more units, then the lines must be underground. Under the franchise agreement, PG&E must supply the needs of the residents and businesses of the City.

X. PUBLIC UTILITIES AND FACILITIES ELEMENT

UNDERGROUND UTILITIES

The City Council may designate underground utility districts by resolution. The City Council may from time to time call public hearings to ascertain whether the public necessity, health, safety or welfare requires the removal of poles, overhead wires and associated overhead structures within designated areas of the City and the underground installation of wires and facilities for supplying electric, communication, or similar associated service.

STREET LIGHTING

Within the City of Piedmont, the majority of the street light standards are owned and maintained by PG&E. Under a contractual agreement, the City pays for this service. There are some areas within the City of Piedmont where the street light standards are owned by the City but maintained by PG&E under contract.

SOLID WASTE MANAGEMENT

The City of Piedmont's solid waste management programs are divided into two general categories: regional; and municipal. The regional programs are carried out under the auspices of the Alameda County Waste Management Authority and include domestic and a small amount of commercial refuse collection and disposal. Municipal efforts include cleanup of street tree leaves, City property vegetation trimmings, recycling, and special debris pickups.

The City of Piedmont has prepared a Source Reduction and Recycling Element (SRRE) and a Household Hazardous Waste Element (HHWE) in accordance with statutory requirements of the State of California. Please refer to those documents for additional information.

X. PUBLIC UTILITIES AND FACILITIES ELEMENT

GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

The following provides the goals, policies, and implementation programs of the Public Utilities and Facilities Element. The implementation programs need to be reviewed annually, as required by California Government Code Section 65400. Section 65400 requires municipal planning commissions to render an annual report to their municipal legislatures on the status of the General Plan and progress on its implementation. The responsibility and timeframes for each of the implementation programs are shown in Section A of the Background Document to this General Plan.

GOAL A: Provide for a reliable water supply and distribution system.

POLICIES

1. Support East Bay Municipal Utility District in efforts to maintain long-term sources of water.
2. Support measures to maintain present water quality.
3. Maintain current fire insurance rating for water distribution system.
4. Maintain ongoing, coordinated maintenance of the City's infrastructure.

IMPLEMENTATION PROGRAMS

1. The City will coordinate replacement of water lines with street resurfacing projects.
2. The City will encourage preventative maintenance.
3. The City will encourage a cyclic replacement program of facilities within the distribution system.
4. The City, in coordination with East Bay Municipal Utilities District (EBMUD), may identify those areas in the City with substandard water flow and may undertake a program for updating water delivery lines/systems.
5. The City may consider creating assessment districts for the purpose of upgrading and expediting water system improvements.

X. PUBLIC UTILITIES AND FACILITIES ELEMENT

GOAL B: Ensure adequate and reliable sewage collection and treatment system.

POLICIES

1. Implement the recommendations of the Inflow and Infiltration Study.
2. Maintain funding for system rehabilitation and long-range planning.
3. Maintain ongoing, coordinated maintenance of the City's infrastructure.

IMPLEMENTATION PROGRAMS

1. The City will restore the sewage collection system to adequate capacity through repair of faulty pipes.
2. The City will continue to require disconnection of storm drain systems from the sewage collection system per recommendations of the Inflow and Infiltration Study.
3. The City will continue the sewer service tax and connection fees to pay for major maintenance.
4. The City will continue the funding plan for replacement of system and an ongoing long-range plan for work.
5. The City will review and implement recommendations on the Inflow/Infiltration Study as appropriate.

GOAL C: Ensure adequate drainage and storm sewer capacity.

POLICIES

1. Maintain total separation of storm sewer and sanitary sewer systems.
2. Protect natural drainage courses which function as part of the storm sewer system.
3. Maintain ongoing, coordinated maintenance of the City's infrastructure.

IMPLEMENTATION PROGRAMS

1. The City will review development proposals in or near natural drainage courses and require installation of storm sewer facilities as necessary.

X. PUBLIC UTILITIES AND FACILITIES ELEMENT

GOAL D: Ensure distribution of electrical and other utilities in a safe, efficient, and aesthetically pleasing manner.

POLICIES

1. Review problems encountered in delivery of services on a regular basis with the service provider.
2. Encourage and support undergrounding of utilities and distribution lines.
3. Encourage ongoing, coordinated maintenance of the City's infrastructure.

IMPLEMENTATION PROGRAMS

1. The City will review ordinances and regulations as necessary to encourage the undergrounding of utilities.
2. The City will provide information to citizens on the costs and the legal process of undergrounding utilities.
3. The City will establish priorities on use of Rule 20 funding for assisting in undergrounding of utilities. (Rule 20 as established by the California Public Utility Commission provides a mechanism to assist cities and counties in the cost of undergrounding existing overhead lines. The funding for the program is provided through allocations from Pacific Gas and Electric Company.)

GOAL E: Provide proper lighting for public safety.

POLICIES

1. Maintain at least current levels of illumination.
2. Ensure timely maintenance of street lights.

IMPLEMENTATION PROGRAMS

1. The City will evaluate purchasing street lights and City or contract maintenance to improve maintenance and decrease costs of street lights.
2. The City will solicit input from residents on the adequacy of street lighting.

**GENERAL PLAN
CITY OF PIEDMONT
BACKGROUND DOCUMENT**

PREPARED FOR:

**CITY OF PIEDMONT
120 VISTA AVENUE
PIEDMONT, CA 94611**

PREPARED BY:

**EDAW, INC.
753 DAVIS STREET
SAN FRANCISCO, CA 94111**

FEBRUARY 1996

SECTION A

**GENERAL PLAN
RESPONSIBILITY MATRIX**

**SECTION A
GENERAL PLAN
RESPONSIBILITY MATRIX**

PAGE	GOAL	POLICY	PROGRAM	TIME FRAME	RESPONSIBILITY
III	LAND USE ELEMENT				
III-9	A	1	1	1995-2005	CC,PC,PW
III-9		2	2	1995-2005	CC,PC,PW
III-9,10	B	1,2,3,4,5	1	1995-2005	CC,PC
III-10	C	1	2	ONGOING	CC,PW,REC
III-10		2	1	1995-2005	CC
III-10		3		ONGOING	REC,RC,PARK
III-10		3,4	3	1995-2005	CC,PW,PARK
III-11	D	1,2,3	1	ANNUAL	CC,PW,REC
III-11		4	2	1995-2005	CC
III-11	E	1	1,2	1995-1996	PW
IV	CIRCULATION				
IV-17	A	1	1	2000	PW
IV-17		1	2,4	ONGOING	PW
IV-17		1	3	2005	PW
IV-18		1	5	1997	PW
IV-18		2	6	1997	PW
IV-18		2	7	ONGOING	PW
IV-18	B	1	1,2	ONGOING	PW
IV-18,19		2	3,4,5,6	ONGOING	PW,PD,PFD

NOTES

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PC - PLANNING COMMISSION
PW - PUBLIC WORKS DEPARTMENT
PD - POLICE DEPARTMENT
PFD - FIRE DEPARTMENT
REC - RECREATION DEPARTMENT

PARK - PARK COMMISSION
RC - RECREATION COMMISSION
CIP - CAPITAL IMPROVEMENT PROGRAM COMMITTEE
DPC - DISASTER PREPAREDNESS COMMITTEE

**APPENDIX A
GENERAL PLAN
RESPONSIBILITY MATRIX**

PAGE	GOAL	POLICY	PROGRAM	TIME FRAME	RESPONSIBILITY
III	LAND USE ELEMENT				
III-9	A	1	1	1995-2005	CC,PC,PW
III-9		2	2	1995-2005	CC,PC,PW
III-9,10	B	1,2,3,4,5	1	1995-2005	CC,PC
III-10	C	1	2	ONGOING	CC,PW,REC
III-10		2	1	1995-2005	CC
III-10		3		ONGOING	REC,RC,PARK
III-10		3,4	3	1995-2005	CC,PW,PARK
III-11	D	1,2,3	1	ANNUAL	CC,PW,REC
III-11		4	2	1995-2005	CC
III-11	E	1	1,2	1995-1996	PW
IV	CIRCULATION				
IV-17	A	1	1	2000	PW
IV-17		1	2,4	ONGOING	PW
IV-17		1	3	2005	PW
IV-18		1	5	1997	PW
IV-18		2	6	1997	PW
IV-18		2	7	ONGOING	PW
IV-18	B	1	1,2	ONGOING	PW
IV-18,19		2	3,4,5,6	ONGOING	PW,PD,PFD

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PAGE	GOAL	POLICY	PROGRAM	TIME FRAME	RESPONSIBILITY
IV-19	C	1		1995-1996	CC,PW
IV-19		2	1,2	ONGOING	CC,PW,PD
IV-19		3		1995-2005	CC
IV-19	D	1,2	1,2	1995-2005	CC,PW
IV-20	E	1	1,2,4	ONGOING	CC,PW,PD
IV-20		1	3	1995-2005	PD
IV-20		2	4	ONGOING	PW
IV-20		3	5	1995-2005	CC,PW
IV-20,21	F	1	1,2,3,4,5,6	ONGOING	CC,PC,PW,PD
VI	OPEN SPACE, RECREATION & CONSERVATION ELEMENT				
VI-7	A	1,2	1	1995-2005 (BLAIR)	CC,PC,PW,REC, RC,PARK
VI-7,8	B	1	1,2,3,5	ONGOING	CC,PW,CIP,REC, RC,PARK
VI-7,8		1	4	ANNUAL	CC,PW,CIP,REC, RC,PARK
VI-7,8		2	6	ONGOING	CC
VI-7,8		3	7,9	ONGOING	CC,PARK,PW
VI-8		4	8	ONGOING	CC,PW,PARK
VI-8	C	1,2	1	ONGOING	CC,PW,REC
VI-8		3	2	ANNUAL	CC,REC,RC,PW, PARK

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PAGE	GOAL	POLICY	PROGRAM	TIME FRAME	RESPONSIBILITY
VII	SAFETY ELEMENT				
VII-10,11	A	1	1,2,3	1995-2005	CC,PW
VII-10,11		2	4,5,6	ONGOING	PW,PFD,DPC
VII-10,11		2	7	1995-2005	CC
VII-10		3	1	2000	CC,PW
VII-10,11		3	8	ONGOING	CC,PW
VII-10,11		4	2A	1995-2005	CC,PW
VII-11	B	1,2,3	1	ONGOING	CC,PC,PW
VII-11,12	C	1	1,2,3,4	ONGOING	CC,PFD,PD,PW, DPC
VII-12		2	2	1997	CC,PW,PD,PFD, DPC
VII-12		3	1,4	ONGOING	PFD,PD,PW,DPC
VII-12		4	2	ONGOING	PW,PFD,PD
VII-13	D	1	1,2,3,4,5,6	ONGOING	PFD,DPC,REC,PW
VII-13	E	1		1995-2005	CC,PD,PFD
VII-13		2		ONGOING	PD
VII-13,14		3	1	ONGOING	PD
VII-13,14		4	2,3	ONGOING	PD
VII-13,14		5	3,4	ONGOING	PD
VII-13,14		6	3,4	ONGOING	PD
VII-13,14		7		ONGOING	PD
VII-13,14		8		ONGOING	PD

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PAGE	GOAL	POLICY	PROGRAM	TIME FRAME	RESPONSIBILITY
VII-14,15	F	1	1	ONGOING	CC,PFD
VII-14,15		2	3,4	ONGOING	PFD,PC,PW
VII-14,15		3	5	ONGOING	PFD
VII-14,15		4	3,5	ONGOING	PFD,PW
VII-14		5		ONGOING	PFD
VII-14		6		ONGOING	PW
VII-14,15		7	2	ONGOING	PFD
VII-14		8		ONGOING	CC,PFD
VII-14,15		9		ONGOING	PFD
VII-15	G	1,2	1	ONGOING	CC,PFD
VIII	NOISE ELEMENT				
VIII-5	A	1	1,2	ONGOING	CC,PD,PW
VIII-5		2	2	ONGOING	PD
VIII-5		3,4	3	ONGOING	CC,PW
VIII-5		4	3	2000	CC,PW
VIII-6	B	1	1,3	ONGOING	PW,PD
VIII-6		2	2	1995-2005	CC
VIII-6	C	1	1,2,3	ONGOING	CC,PD,REC,RC, PARK
IX	COMMUNITY DESIGN ELEMENT				
IX-2	A	1,2,3,4	1	1995-2005	CC
IX-2,3	B	1,2	1	ONGOING	CC,PC,PW

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PAGE	GOAL	POLICY	PROGRAM	TIME FRAME	RESPONSIBILITY
IX-3		3		ONGOING	CC,PW
IX-3		4	1,2	ONGOING	CC,PC,PW
IX-3	C	1	1	1995-2005	CC,PC,PW
IX-3,4	D	1,2,3,4,5,6 7,8,	1	ONGOING	CC,PC,PW
IX-4	E	1,2	1	ONGOING	CC,PW,PARK
IX-4,5	F	1	1,2,3,4	ONGOING	CC,PW,PD,REC, PARK,RC
X	PUBLIC UTILITIES & FACILITIES ELEMENT				
X-4	A	1	1	ONGOING	CC,PW
X-4		2	1,2,3	ONGOING	CC,PW
		3	2	ONGOING	CC,PFD
X-4		3	4	1995-2005	CC
X-4		4	2,3,5	ONGOING	CC,PW,PFD
X-5	B	1,3	1,2,5	ONGOING	CC,PW
X-5		2	3,4	ONGOING	CC,PW
X-5	C	1,2,3	1	ONGOING	PW
X-6	D	1		ONGOING	CC,PW
X-6		2,3	1,2,3	1995-2005	CC,PW
X-6	E	1	1,2	1995-1996	CC,PW
X-6		2	1	1995-1996	CC,PW

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SECTION B

**GENERAL PLAN
REQUIREMENT INDEX**

SECTION B
GENERAL PLAN REQUIREMENT INDEX

REQUIREMENT	DOCUMENT	SECTION
LAND USE		
Proposed general distribution and location and extent of the uses of the land for:	General Plan	<i>II - Land Use Element E - Land Use Background Document</i>
<ul style="list-style-type: none"> • Housing • Business • Industry • Open Space • Agriculture • Natural Resources • Recreation • Enjoyment of Scenic Beauty • Education • Public Buildings and Grounds • Solid and Liquid Waste Disposal • Other Categories of Private and Public 		<i>Due to the residential nature of the community, the categories of industry, agriculture, natural resources and solid and liquid waste disposal have not been addressed.</i>
Statement of standards of population density.	General Plan	<i>D- Socioeconomic Profile, Background Document</i>
Statements of standards of building intensity.	General Plan	<i>III - Land Use Element E - Land Use Background Document</i>
Identify areas subject to flooding and review annually.	General Plan	<i>VI - Safety Element I - Safety Background Document</i>
Designate those parcels of real property zoned for timberland production.	General Plan	<i>Not Applicable</i>
CIRCULATION		
General location and extent of:	General Plan	<i>IV - Circulation Element F - Circulation Background Document</i>
<ul style="list-style-type: none"> • existing and proposed major thoroughfares • transportation routes • terminals • other local public utilities and facilities 		<i>X - Public Utilities and Facilities Element L - Public Utilities and Facilities Background Document</i>

GENERAL PLAN REQUIREMENT INDEX
(Continued)

REQUIREMENT	DOCUMENT	SECTION
<p>CONSERVATION</p> <p>Conservation, development, and utilization of natural resources including:</p> <ul style="list-style-type: none"> • water and its hydraulic forces • forests • soils • rivers and other waters • harbors • fisheries • wildlife • minerals • other natural resources 	General Plan	<i>Due to the urbanized nature of the City of Piedmont and its vicinity, there are no significant conservation issues as defined by state law.</i>
<p>OPEN SPACE</p> <p>Open space for the preservation of natural resources including but not limited to:</p> <ul style="list-style-type: none"> • areas required for the preservation of plant and animal life including habitat for fish and wildlife species • areas required for ecological and other scientific study purposes • rivers, streams, bays and estuaries • coastal beaches, lake shores, banks of rivers and streams and watershed lands 	General Plan	<i>Due to the urbanized nature of the City of Piedmont and its vicinity, there are no significant conservation issues as defined by state law.</i>
<p>Open space used for the managed production of resources, including, but not limited to:</p> <ul style="list-style-type: none"> • forest lands, rangeland, agricultural lands and areas of economic importance for the production of food or fiber • areas required for recharge of groundwater basins • bays, estuaries, marshes, rivers and streams which are important for the management of commercial fisheries • areas containing major mineral deposits including these which are in short supply 	General Plan	<i>Due to the urbanized nature of the City of Piedmont and its vicinity, there are no significant conservation issues as defined by state law.</i>

GENERAL PLAN REQUIREMENT INDEX

(Continued)

REQUIREMENT	DOCUMENT	SECTION
<p>OPEN SPACE (Cont.)</p> <p>Open space for outdoor recreation including, but not limited to:</p> <ul style="list-style-type: none"> • areas of outstanding scenic, historic and cultural value • areas particularly suited for park and recreation purposes, including access to lake shores, beaches, rivers and streams • areas which serve as links between major recreation and open-space reservations, including utility easements, banks of rivers and streams, trails, and scenic highway corridors <p>Open space for public health and safety including, but not limited to:</p> <ul style="list-style-type: none"> • areas which require special management or regulation because of hazardous or special conditions such as earthquake fault zones, unstable soil areas, flood plains, watersheds, areas presenting high fire risks, areas required for the protection of water quality and water reservoirs and areas required for the protection and enhancement of air quality <p>NOISE</p> <p>Recognize the guidelines adopted by the Office of Noise Controls in the State Department of Health Services</p> <p>Analyze and quantify current and projected noise levels for:</p> <ul style="list-style-type: none"> • highways and freeways • primary arterial and major local streets • passenger and freight on-line railroad operations and ground rapid transit systems 	<p>General Plan</p> <p>General Plan</p> <p>General Plan</p>	<p><i>Due to the urbanized nature of the City of Piedmont and its vicinity, there are no significant conservation issues as defined by state law.</i></p> <p><i>VII - Safety Element I - Safety Background Document</i></p> <p><i>VIII - Noise Element J- Noise Background Document</i></p> <p><i>VIII - Noise Element J- Noise Background Document</i></p> <p><i>The City of Piedmont encompasses approximately 1.8 square miles and does not have any freeways, airports, railways, or rapid transit</i></p>

GENERAL PLAN REQUIREMENT INDEX
(Continued)

REQUIREMENT	DOCUMENT	SECTION
<p>NOISE (Cont.)</p> <ul style="list-style-type: none"> commercial, general aviation, heliport, helitop, and military air operations, aircraft overflights, jet engine test stands, and all other ground facilities and maintenance functions related to airport operation local industrial plants, including, but not limited to, railroad classifications yards other ground stationary noise sources 		<p><i>systems within the City's boundaries. The major transportation facilities, Interstate 580 and Highway 13 and 24 , are outside the City limits at a relative distance related to noise. Because of this, the studies of noise levels within the City of Piedmont have been directed at noise originating locally, within the City boundaries, or the adjacent areas in the City of Oakland.</i></p>
Use CNEL or Ldn for contours. The noise contours shall be prepared on the basis of noise monitoring or following generally accepted noise modeling techniques for the various sources identified above.	General Plan	<i>VIII - Noise Element J- Noise Background Document</i>
Noise contours shall be used as a guide for establishing a pattern of land uses that minimize the exposure of community residents to excessive noise.	General Plan	<i>VIII - Noise Element J- Noise Background Document</i>
Implementation measures and possible solutions that address existing and foreseeable noise problems	General Plan	<i>VIII - Noise Element J- Noise Background Document</i>
<p>SAFETY</p> <p>Protection of the community from any unreasonable risks associated with the effect of:</p> <ul style="list-style-type: none"> seismically induced surface rupture ground shaking ground failure 		<p><i>VII- Safety Element I - Safety Background Document</i></p>

GENERAL PLAN REQUIREMENT INDEX

(Continued)

REQUIREMENT	DOCUMENT	SECTION
SAFETY (Cont.) <ul style="list-style-type: none"> • tsunami • seiche • dam failure • slope stability leading to mudslides and landslides • subsidence • other geological hazards • flooding • wild land and urban fires 		
Mapping of known seismic and other geological hazards	General Plan	<i>VII- Safety Element I - Safety Background Document</i>
Evacuation routes	General Plan	<i>VII- Safety Element I - Safety Background Document</i>
Peakload water supply rates	General Plan	<i>IV - Circulation Element F- Circulation Background Document</i>
Minimum road widths	General Plan	<i>VII- Safety Element I - Safety Background Document</i>
Clearance around structures	General Plan	<i>VII- Safety Element I - Safety Background Document</i>
HOUSING		
Previous Housing Element Evaluation	General Plan	<i>Housing Element</i>
Assessment of housing needs and inventory of resources and constraints relevant to the meeting of these needs: <ul style="list-style-type: none"> • analysis of population and employment trends • documentation of projections 		<i>The Housing Element is bound under a separate cover. Please refer to that document for housing related issues.</i>

GENERAL PLAN REQUIREMENT INDEX

(Continued)

REQUIREMENT	DOCUMENT	SECTION
<p>HOUSING (Cont.)</p> <ul style="list-style-type: none"> quantification of existing and projected housing needs for all income levels including the locality's share of regional housing need analysis and documentation of household characteristics including level of payment compared to ability to pay, housing characteristics including overcrowding, and housing stock condition inventory of land suitable for residential development including vacant sites and sites having potential for redevelopment, and an analysis of the relationship of zoning and public facilities and services to these sites analysis of potential and actual governmental constraints upon the maintenance, improvement or development of housing for all income levels, including land use controls, building codes and their enforcement, site improvements, fees and exactions required of developers, and local permit processing procedures analysis of potential and actual nongovernmental constraints upon maintenance, improvement, and development of housing for all income levels, including availability of financing, the price of land, and the cost of construction analysis of special housing needs such as those of the handicapped, elderly, large families, farm workers, families with female head of households, and families and persons in need of emergency shelter analysis of opportunities for energy conservation with respect to residential development analysis of existing assisted housing developments that are eligible to change to non-low-income housing uses during the next 10 years due to termination of subsidy contracts, mortgage prepayments, or expiration of use restrictions 	General Plan	<p><i>Housing Element</i></p> <p><i>The Housing Element is bound under a separate cover. Please refer to that document for housing related issues.</i></p>

SECTION C
PUBLIC INVOLVEMENT

GENERAL PLAN REVIEW COMMITTEE

TUESDAY, APRIL 26, 1994

AGENDA

7:30 PM

Council Chambers

1. Public Forum.
2. Review of draft revisions to the Recreational Facilities and Programs Element, Environmental Hazards Element, and Community Design Element
3. Discussion of next review topic.
4. Adjournment.

In accordance with G.C. Section 54954.2(a) this notice and agenda were posted on the City Hall bulletin board and also in the Police Department on Thursday, April 14, 1994.

GENERAL PLAN REVIEW COMMITTEE

WEDNESDAY, MAY 18, 1994

AGENDA

7:00 PM

Memorial Room,
Veteran's Building-Lower Level

1. Public Forum.
2. Review of draft revisions to the Land Use Element and Community Design Element (Continued discussion from April 26, 1994)
3. Discussion of next review topic
4. Adjournment

In accordance with G.C. Section 54954.2(a) this notice and agenda were posted on the City Hall bulletin board and also in the Police Department on Thursday, May 5, 1994.

GENERAL PLAN REVIEW COMMITTEE

TUESDAY, JUNE 28, 1994

AGENDA

7:00 PM

Memorial Room,
Veteran's Building-Lower Level

1. Public Forum.
2. Review of draft revisions to the Circulation and Safety Elements
3. Discussion of next review topic
4. Adjournment

In accordance with G.C. Section 54954.2(a) this notice and agenda were posted on the City Hall bulletin board and also in the Police Department on Thursday, June 16, 1994.

GENERAL PLAN REVIEW COMMITTEE

WEDNESDAY, AUGUST 10, 1994

AGENDA

7:00 PM

**Memorial Room,
Veteran's Building-Lower Level**

1. Public Forum.
2. Review of draft revisions to the Circulation and Noise Elements
3. Discussion of next review topic
4. Adjournment

In accordance with G.C. Section 54954.2(a) this notice and agenda were posted on the City Hall bulletin board and also in the Police Department on Thursday, July 28, 1994.

**GENERAL PLAN REVIEW COMMITTEE
PLANNING COMMISSION**

WEDNESDAY, NOVEMBER 16, 1994

AGENDA

7:00 PM

**Memorial Room,
Veterans' Hall-Lower Level**

1. Public Forum.
2. Review of draft revisions to the Piedmont General Plan
3. Adjournment.

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the City Clerk (510) 420-3040. Notification by Tuesday noon preceding the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 35.102-35.104 ADA Title II)

In accordance with G.C. Section 54954.2(a) this revised notice and agenda were posted on the City Hall bulletin board and also in the Police Department on Thursday, November 3, 1994.

SECTION D
SOCIOECONOMIC PROFILE

SOCIOECONOMIC PROFILE

The following provides a summary of the socioeconomic profile for the City of Piedmont. This profile reflects the community as it was in 1990, according to latest data from the 1990 Census.

POPULATION CHARACTERISTICS

Table D-A provides a summary of the population of the City of Piedmont by age, race and origin.

In 1990, the total population of the City was 10,602. The racial composition was predominantly white (85.8 percent), with Asians constituting the largest minority group (12.5 percent). Over 54 percent of the population were native Californians; approximately 11.6 percent were foreign-born.

The median age of the population was 41.6 years, as compared with 32.2 for Alameda County. While 14.6 percent of the City's population was 65, only 10 percent of the County was in that age group.

The average number of persons per household was 2.84, up from 2.79 in 1980. Half (50.1 percent) of the households were one-person or two-person households.

EMPLOYMENT CHARACTERISTICS

The median household income in 1990 was \$84,498. About one-third (32.8 percent) of the households earned over \$125,000 in 1990.

Approximately 71 percent of persons over age 25 completed four or more years of college. Less than 3 percent completed less than four years of high school.

The civilian unemployment rate for City residents 16 years of age and over was about 1.19 percent. The labor force participation ratio of 66.3 percent; 79.4 percent for males and 55.0 percent for females.

Table D-B provides a summary of employed persons 16 and over by occupation. Over 59 percent of the employed City's residents were in executive, administrative, managerial and professional occupations. About 29 percent were employed in clerical and sales positions.

Approximately 16.4 percent of the City's employed residents also worked in the City of Piedmont. Over 62 percent worked either in Oakland or San Francisco, and about 20 percent worked elsewhere, primarily in Alameda and Contra Costa Counties.

To reach their jobs, 64.5 percent of the workers drove alone in their private vehicles. Among workers 16 years and over, 13 percent were in carpools. Public transit was used by 8.5 percent of the workers. Mean commuting time was slightly over 22 minutes.

TABLE D-A
CITY OF PIEDMONT
POPULATION BY AGE, RACE AND HISPANIC ORIGIN

Age	Total	White	Black	American Indian	Asian	Other	Hispanic Origin
Under 5 Years	732	593	5	0	121	13	19
5 to 17 Years	2,104	1,751	0	7	325	21	67
18 to 64 Years	6,211	5,360	33	10	756	52	210
65 Years & Over	1,547	1,391	35	0	121	0	59
Total in 1990	10,602	9,095	73	17	1,323	86	355
Percent	100%	85.8%	.7%	.2%	12.5%	.8%	3.3%

Source: U.S. Department of Commerce, Bureau of Census, 1990.

TABLE D-B
CITY OF PIEDMONT
EMPLOYED PERSONS 16 AND OVER BY OCCUPATION

Occupation	Number of Persons
Executive, Administrative, Managerial	1,222
Professional Speciality	1,905
Technicians and Related Support	210
Sales	774
Administrative Support, Including Clerical	549
Private Household	55
Protective Service	53
Other Service	213
Farming, Forestry, Fishing	20
Precision Production, Craft and Repair Services	121
Machine Operators, Assemblers and Inspectors	60
Transportation and Material Moving	17
Handlers, Helpers and Laborers	43

Source: U.S. Department of Commerce, Bureau of Census, 1990.

HOUSING CHARACTERISTICS

Of the City's total housing stock, 97.2 percent were single-family detached units. The vacancy rate was 2.5 percent. Of the multiple-unit structures, 17 percent had vacancies.

Approximately two-thirds (67.6 percent) of the housing stock was built prior to 1940. Only 3.6 percent of the housing units have been built since 1970. Almost all of the renter household reside in housing units built prior to 1950.

Over 88 percent of the housing units were owner occupied. Approximately 9.2 percent of the housing units were renter occupied. Of these renter-occupied units, 8 percent were single-family detached units.

The median value of owner-occupied housing units was \$500,000, the highest of any city in the County. Only 12 percent of the units were valued under \$300,000.

The median contract rent paid was \$1,001, also the highest of any city in the County. About 5 percent of the rental units has rents under \$500.

SECTION E

LAND USE BACKGROUND INFORMATION

LAND USE BACKGROUND INFORMATION

EXISTING LAND USE

The land in Piedmont is devoted almost exclusively to residential uses. There are no industrial enterprises and commercial activity is limited to a handful of establishments in two small areas. These areas are the Civic Center adjacent to Highland Avenue and Vista Avenue and the commercial district along Grand Avenue near the southern boundary with the City of Oakland. The remaining developed acreage is devoted to parks, schools, religious institutions, civic facilities and utilities. Exhibit E-1 provides the existing land uses. Table E-A provides the acreage of the existing land uses in the City of Piedmont.

RESIDENTIAL DEVELOPMENT

Exhibit E-2, Land Use Plan, provides the location of the permitted residential land uses.

Character of Existing Residential Development

The main objective of the City of Piedmont's incorporation in 1907 was to preserve the single-family residential character of the community. Every City Council since then has adhered to this basic principle and to Piedmont's charter. The citizens have reserved for themselves the power to change the zoning of any portion of the City only through their affirmative vote.

Of the City of Piedmont's total area, 776 acres are zoned for residential, 772 of which are zoned for single-family dwellings. There are a total of 3,848 housing units, of which 3,756 are single family.

People tend to think of the City of Piedmont as a city of large houses on large lots, but a close study of the lot sizes reveals that there are a large number of very small lots and a great diversity in lot sizes (ranging from approximately 3,000 square feet to six or more acres). The average single-family lot size is 0.208 of an acre, which is 9,059 square feet. This translates into an overall average net density of approximately five dwelling units per acre. Net density excludes public streets and nonresidential uses.

The general density pattern shows higher densities in the western section and along major traffic arteries, with lower densities in the central section north and east of the Civic Center area and in the eastern hill areas. The usual pattern of higher densities surrounding a high-activity area such as the Civic Center does not occur in the City of Piedmont.

EXISTING LAND USE



TABLE E-A
CITY OF PIEDMONT
LAND USE PLAN STATISTICAL SUMMARY

Designation	Acres	Percent of Development in City	Number of Dwelling Units	Square Footage of Non-Residential Structures
Residential				
Estate & Suburban (Single-Family)	772.4	70.3	3,752	NA
Medium (Multi-Family)	3.7	0.3	118	NA
Commercial ¹	3.7	0.3	NA	135,036 s.f.
Parks and Open Space	44.3	4.0	NA	1,929,708 s.f.
Educational Facilities	25.5	2.3	NA	1,110,780 s.f.
Churches ²	6.8	0.6	NA	NA
Civic Facilities	8.6	0.8		374,616 s.f.
Utilities ³	10.9	1.0		474,804 s.f.
Streets	223.0	20.3		9,713,880 s.f.
TOTAL	1,098.9	100.0	3,870	

Source: City of Piedmont, 1994.

s.f. = square feet







NA = Not Applicable

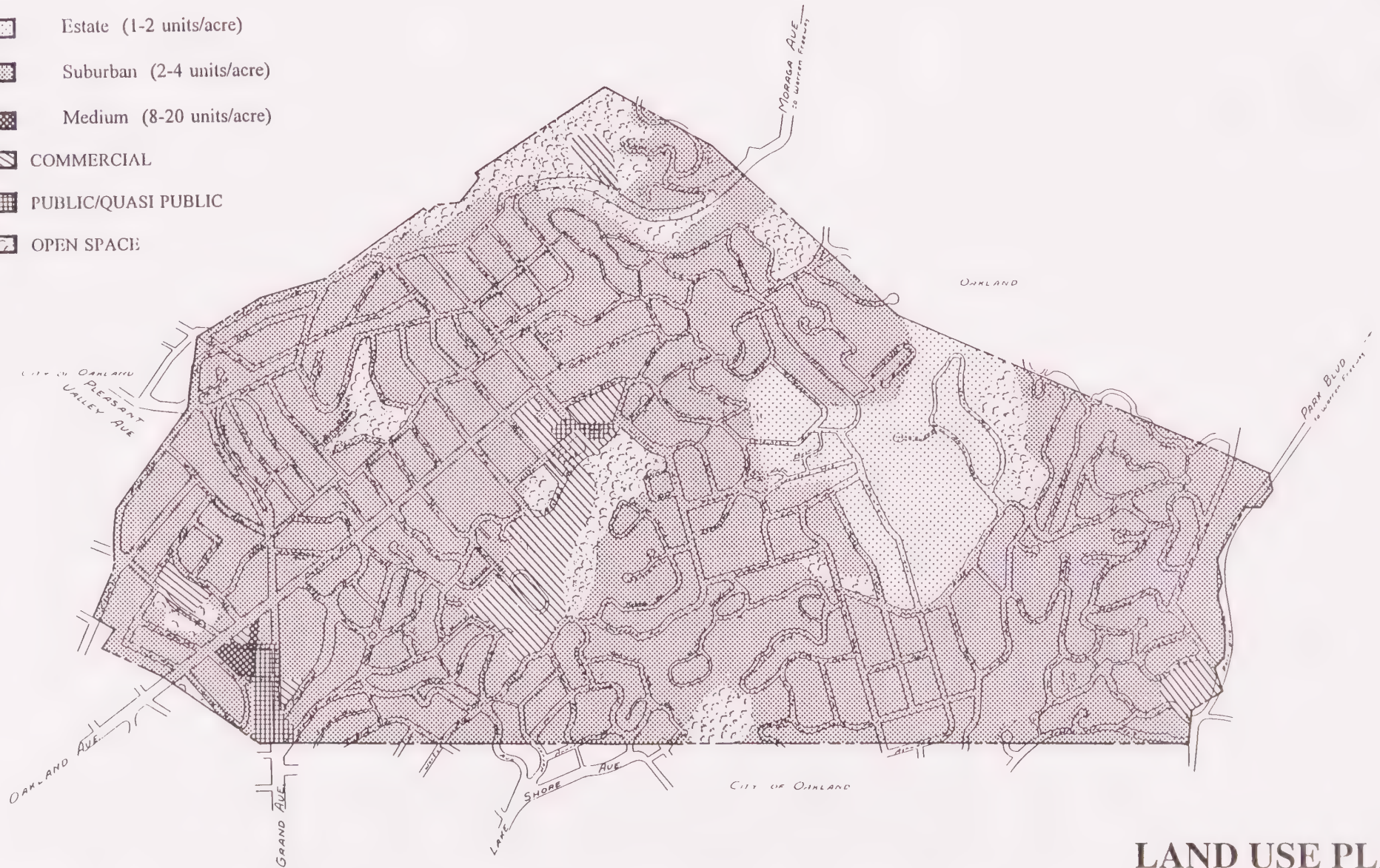
¹ Includes 1.5 acres on Grand Avenue zoned for commercial (Zone D), but still used for single-family dwellings.

² Includes Parochial schools.

³ Includes Piedmont Reservoir No. 2 of East Bay Municipal Utility District (EBMUD) 9.0 acres, Pacific Gas & Electric Company substation 0.23 acre, and EBMUD pump house (Grand Avenue) 0.12 acre.

RESIDENTIAL

-  Estate (1-2 units/acre)
-  Suburban (2-4 units/acre)
-  Medium (8-20 units/acre)
-  COMMERCIAL
-  PUBLIC/QUASI PUBLIC
-  OPEN SPACE



LAND USE PLAN

Residential Density

The residential density standards are provided on Table E-B. The residential density standards in the City of Piedmont reflect existing development and established density patterns.

There may be some areas in the City of Piedmont where a further lowering of density standards (or increasing the minimum lot size) might be desirable for several reasons, including:

- (1) The need to preserve the large estates that have historic significance and/or provide visual open space amenities; and
- (2) The need to protect environmentally sensitive areas, such as steep slopes, drainage courses, trees and other vegetation.

These factors may be taken into consideration at the time of application for subdivision and subsequent reviews.

Potential for Further Residential Development

The issue of growth is one which must be addressed in any planned approach to a city's future. Should it be held in check, encouraged or allowed to take its own course? There are three principal ways in which a city can grow: (1) by expanding its borders; (2) by the infill method of building on bypassed land; and/or (3) by rezoning to permit high densities. The boundaries of Piedmont are fixed. The density standard reflect established density patterns.

Piedmont has one vacant parcel left within the City which is capable of subdivision. In addition, of the developed parcels, some are capable of further subdivision under existing policies and ordinances.

The impact of further development on the infrastructure, with the exception of sewers and streets, is not an important constraint. Development will need to be reviewed on a case-by-case basis, as the conditions of the sewer system and streets vary throughout the City.

Types of Residential Development

Detached Single-Family Housing

Existing development in the City of Piedmont consists almost exclusively of detached single-family residences, with one house per lot. Alternative types of detached single-family housing are often more appropriate in certain instances, where there are irregular lot shapes, hilly terrain or other local site constraints. Several examples of alternative design techniques, which improve land use efficiency without sacrificing the quality of life of increasing densities, include the following:

- (1) Zero Lot Line: Placement of one side of the house on a property line, thus avoiding wasting land in narrow side yards.

TABLE E-B
CITY OF PIEDMONT
DENSITY/INTENSITY STANDARDS

ZONING ORDINANCE				GENERAL PLAN		
ZONE DISTRICT	MINIMUM LOT AREA	MAXIMUM BUILDING HEIGHT	RESIDENT PARKING	GENERAL PLAN DESIGNATION	GENERAL PLAN DENSITY	INTENSITY ²
A Single Family Residential	10,000 s.f.	35'	2 spaces/suburban lot 1 space/700 s.f. second unit 2 spaces/up to 4 bedrooms 3 spaces/5 to 6 bedrooms	Suburban	2-4 d.u./acre (10,890 s.f. - 21,780 s.f.)	2.84 (persons/d.u.)
B Public Facilities	10,000 s.f.	25'	1 space/250 s.f.	Public/Quasi Public	NA	
C Multiple Density Residential	2,000 s.f.	35'	2 spaces/d.u.	Medium	8-20 units/acre (2,178 s.f. - 5,445 s.f.)	2.84 (persons/d.u.)
D Commercial	10,000 s.f.	35'	1 space/150 s.f. ¹	Commercial	NA	.49 FAR

TABLE E-B (CONT'D)
CITY OF PIEDMONT
DENSITY/INTENSITY STANDARDS

ZONING ORDINANCE				GENERAL PLAN		
ZONE DISTRICT	MINIMUM LOT AREA	MAXIMUM BUILDING HEIGHT	RESIDENT PARKING	GENERAL PLAN DESIGNATION	GENERAL PLAN DENSITY	INTENSITY ²
E Single Family Residential Estate	20,000 s.f.	35'	2 spaces/d.u. 1 space/700 s.f. second unit 2 spaces/up to 4 bedrooms 3 spaces/5 to 6 bedrooms	Estate	1-2 units/acre (21,780 s.f. - 43,560 s.f.)	2.84 (persons/d.u.)

Source: City of Piedmont General Plan Housing Element, January 30, 1994 and Municipal Code (Chapter 17).

¹ One space is required for 150 square feet of floor areas of eating facilities or other similar high intensity uses. One non-tandem parking space is required for each 250 square feet of floor area for retail stores, offices, and other low intensity uses.

² Source of household size is U.S. Census of Population and Housing, 1990, State of California Department of Finance.

NA = Not Applicable
d.u. = dwelling unit
s.f. = square feet
FAR = Floor Area Ratio

- (2) Planned Unit Development (“PUD”): A number of houses in a single development using special planning concepts to make more efficient use of the land. For example, cluster housing provides for the grouping of houses in exchange for larger, more useable open spaces.

Attached Single-Family Housing

In addition, there are types of attached single-family housing which can be developed at densities no greater than those found in many areas of the City of Piedmont. Examples include the following:

- (1) Duplex: Two attached dwelling units, each with its separate outside entrance.
- (2) Triplex or Fourplex: Three or four dwelling units in a single building, all with separate outside entrances (no interior corridor).
- (3) Townhouse: Three or more dwelling units attached side by side, with a front and rear yard, usually two or more stories in height.

Under the existing zoning ordinance, these types of housing are not permitted in the single-family Zone (Zone RE) and are limited to the multiple-family zone (Zone RM).

Multiple-Family Housing

Multiple-family housing is defined here as multiple dwelling units in a single building and two or more stories in height. This type of housing is permitted only in Zone RM. There are very few such buildings in Piedmont, even in the multiple-family zone (Zone RM). Most of the existing structures are single-family dwellings which have been divided into two or more units.

Residential Designations and Standards

There are three residential designations in the City of Piedmont as described below:

Estate - The Estate Residential designation provides for the development of large lot single-family residences and accessory structures in harmony with the character of existing and proposed development in the neighborhood. Many lots within this designation are non-conforming. This designation provides for development of single-family residences with a density of approximately 1 to 2 dwelling units per acre.

Suburban - The Suburban Residential designation provides for the development of single-family residences and accessory structures in harmony with the character of the existing and proposed development in the neighborhood. Many lots within this designation are non-conforming. This designation provides for development of single-family residences with a density of approximately 2 to 4 dwelling units per acre.

Medium - The Medium Residential designation provides for the development of multiple-family housing and accessory structures in harmony with the character of the existing and proposed

development in the neighborhood. Multiple-family housing is defined as multiple dwelling units in a single building designed to be occupied by more than one family independently of each other. This designation provides for development of approximately 8 to 20 dwelling unit per acre.

COMMERCIAL DEVELOPMENT

Exhibit E-2, Land Use Plan, provides the location of the commercial land uses.

The commercial designation provides for the development of retail commercial uses in appropriate areas of the City, to serve the residents of the City on a regular basis. The commercial development includes uses consistent and in harmony with the character of existing and proposed development in the existing commercial areas and adjacent residential areas.

There are two areas of commercial development in the City of Piedmont: the Civic Center area and the Grand Avenue area.

Civic Center Area

The Civic Center area is a well-defined commercial cluster that serves as a small neighborhood convenience center. In 1994, the Civic Center area contained three banks, a gas station, a convenience market and professional offices and services including a barber and dentist. There is no further development possible.

Due to its proximity to the Civic Center (City Hall, schools, churches), this commercial area shares in the chronic parking shortage in the vicinity. Parking is further discussed in Section F - Circulation Background Information.

Grand Avenue Area

The Grand Avenue area is a continuation of the neighborhood commercial district along Grand Avenue in the City of Oakland. The commercial district extends from the I-580 Freeway in the City of Oakland northward to Linda Avenue. In 1994, the Grand Avenue area in the City of Piedmont contained one gas station, a hardware store, an auto repair shop, an upholstery shop and miscellaneous professional offices and services.

In the City of Piedmont, all of the commercial zoning and development is on the west side of Grand Avenue, with the exception of one gas station at the intersection with Wildwood Avenue. In the middle of this strip is a string of residences. Thus far, there has not been any great pressure to convert these homes to commercial uses. Since there is only one commercial zone, the City should make it clear as to what type of commercial uses would be most appropriate in this location. If the City does not desire further commercial development of the conversion of residences, then rezoning of the residential zone should be initiated.

Parking is also a problem in this area, although to a lesser extent than in the Civic Center area. Existing development has generally provided less than adequate off-street parking or relied on parking spaces along Grand Avenue. If further development is to take place, standards for off-street parking should be upheld and enforced.

OPEN SPACE

Open space is land area either left in its natural state or developed in a manner that preserves its original character and resources. It is important for urban communities to leave spaces open for the visual, psychological and health benefits to their citizens, whether for active or passive enjoyment. Within the city limits of Piedmont, there are approximately 91.41 acres of open space under public and private ownership. Exhibit E-2, Land Use Plan, provides the location of open space. Table E-C provides a summary of open space within the City of Piedmont.

PARKS

Types of Parks

There are various kinds of parks which are utilized by Piedmont residents, all serving different functions and needs. They include regional, community and neighborhood parks, mini-parks and park-like areas which cater to particular activities.

Regional Parks

As has been the case for a number of years, the City's residents have generally looked outside the City for recreational and amusement facilities usually found in regional parks. Piedmont is located near parkland in Oakland, including Lake Merritt, the Oakland Rose Garden, Montclair Park and Knowland Park Zoo. In addition to parks in Oakland, the East Bay Regional Park District also includes Lake Temescal Regional Park, Joaquin Miller Park, Redwood Regional Park and Chabot Regional Park which are only a short distance away and contain hiking trails, picnic areas and other facilities.

Community Parks

Piedmont Park serves as a community park. Piedmont Park has many features unusual for one park: a community hall which is in continuous use; a play area for children; an Italianate entry, the Exedra, which is on axis with Highland Avenue; a stream; a developed system of trails within a forested glen; a sunny lawn area; a Japanese tea house; and parking. The park is adjacent to major town facilities such as City Hall, Recreation Center, school facilities and retail and office space. The park and its surroundings embody the historical center of Piedmont and serves as a reference point for City residents.

Neighborhood Parks and Mini-Parks

Within the 1.8 square miles comprising the City, there are approximately 58.59 acres of neighborhood parks and playgrounds. A list of the City's parks and playgrounds and the acreage of each appears in Table E-C. The City currently has six developed parks including Dracena Park, Piedmont Sports Field, Linda Park, Crocker Park, Linda Playfield and Coaches' Playfield at Moraga Canyon. Blair Park at Moraga Canyon is undeveloped. In some instances, these parks are adjacent to school playgrounds and they function as a unit.

TABLE E-C

CITY OF PIEDMONT

OPEN SPACE

OPEN SPACES	ACREAGE
Acreage of Parks and Playgrounds	
Recreation Center	2.0
Piedmont Park	15.3
Dracena Park	7.8
Linda Park	1.3
Piedmont Sports Field	2.4
Crocker Park	0.99
Hall Fenway	0.26
Blair Park (Undeveloped)	8.2
Coaches' Playfield at Moraga Canyon	3.8
Linda Playfield	2.2
Subtotal of City Operated	44.25
Havens School Playground	1.5
Wildwood School Playground	0.7
Beach School Playground	2.0
High School Sports Field	4.3
Subtotal of School Operated	8.5
Davie Tennis Stadium	5.0
Rose Garden (portion)	0.84
Subtotal of Oakland Operated	5.84
Subtotal	58.59

TABLE E-C (CONT'D)**CITY OF PIEDMONT
OPEN SPACE**

OPEN SPACES	ACREAGE
Acreege of Smaller Open Space Areas	
Grand Avenue	.70
San Carlos Avenue	.45
Fairview Avenue	.67
St. James Drive (5 Islands)	.80
13 small open space areas in medians	1.44
Subtotal	4.06
Acreege of Other Public and Private Open Space	
City Corporation Yard	7.76
EBMUD Reservoir	8.26
Mountain View Cemetery	6.31
Tyson Lake	4.57
Subtotal	26.90
TOTAL	89.55

Source: City of Piedmont, 1994.

Other Parks and Smaller Open Space Areas

These areas include special recreational facilities such as the Davie Tennis Stadium, the Rose Garden (both owned by Oakland), and other smaller open space areas such as the landscaped circles and strips which are found throughout the City.

City Parks and Facilities

Piedmont Park

This park has some of the attributes of a community park, but not the size. Out of a total of about 15.3 acres, there are about 4 acres of sloping grass areas (unsuitable for team sports), two tennis courts and a play structure. The remainder is mostly developed natural area. There is also a Tea House and Community Hall rental facility that receives heavy usage.

Dracena Park

This park has three grass areas, one quite sloped and the other two interspersed with walkways. The lower level grass area has a play structure. The remainder of this 7.8 acre park is divided equally between developed and undeveloped natural areas. There is a large level quarry bottom in the undeveloped area. The Recreation and Park Commissions have conducted joint hearings on the use of the quarry area. The joint Recreation and Park Committee recommended that the quarry area be used for passive recreational activities. The City Council concurred and has directed City staff to further study and explore the development of the quarry for passive use.

Piedmont Sports Field

This 2.4 acre park has a playfield of about one acre developed with a high-quality but small baseball field. The outfield grass is also used for children's football and soccer. The park also has two tennis courts, two tennis practice backboards, a volleyball court, a full-size basketball court, restrooms and a storage facility.

Recreation Center

This facility contains four lighted tennis courts, basketball courts, a play structure and a small picnic area. The Piedmont Swim Club operates a swimming pool under a lease agreement. The Recreation Center building itself provides space for administrative offices and indoor activities. The Carriage House is leased to Dress Best for Less (DBFL), a school support group.

Crocker Park

This is a landscaped area of approximately .99 of an acre intended primarily for passive recreational activities. The nearby Hall Fenway serves the same function.

Linda Park

This is a linear strip park which serves as a pathway for jogging, walking and similar activities.

Linda Playfield

This park consists of two play areas, a large grass field and two tennis courts. There is also a public restroom facility.

Coaches' Playfield at Moraga Canyon

This approximately 3.8 acre sportsfield has a baseball facility with 70-foot basepaths and a 200-foot outfield along with a 120-foot by 180-foot soccer field. The field is utilized for soccer (for youth under 10 years old), baseball (for youth 12 years old and under), girls softball and flag football.

School Grounds and Facilities

High School

The high school field (Witter Field) has a regulation football field which is also suitable for soccer. The field also has a running track, which is less than the regulation 440 yards, and a baseball field (with an extremely high fence) suitable for high school baseball.

Elementary Schools

Two of the elementary schools, Havens and Beach, have paved facilities suitable for youth softball. All of the schools have basketball goals, handball courts, play structures, etc.

Other Park Facilities

The City of Oakland operates Davie Tennis Stadium, which is just within Piedmont's city limits. This is a special purpose facility with six tennis courts. Being in a metropolitan area, Piedmont residents have access, with a short drive, to parks in Oakland and parks within the East Bay Regional Park District. Grass playfields are still very much at a premium within this expanded area. Flat land which would be suitable for grass playfields is fully developed, and the establishment of significant additional playfield space is unlikely.

Need for Additional Parkland

According to guidelines published by the National Recreation and Parks Association, a city should provide approximately 6.25-10.50 acres of local-serving parks per 1,000 population. For the City of Piedmont, this suggests that developed parkland should amount to 60 to 110 acres. Existing parkland in the City, including school playgrounds, amounts to only 58.59 acres. Thus, more parkland is needed in the City of Piedmont to provide its citizens with adequate recreational areas. This need is even more acute in view of the fact that existing parkland is already intensively developed.

According to results of a 1974 study by the California Department of Parks and Recreation regarding the demand for various outdoor recreational activities for the San Francisco Bay Region, the two activities in greatest demand are walking for pleasure and playing games and

sports. This indicates that there is a great demand for walking trails and athletic fields. These activities should be given strong consideration prior to developing any new parkland in the City.

There is currently a shortage of grass athletic fields in the City. All organized and incidental football, soccer, baseball and softball activities are restricted to the grass athletic fields at Piedmont High School, Piedmont Sports Field and Coaches' Playfield at Moraga Canyon. In order to relieve the burden on the City's grass athletic fields, additional open space will have to be acquired or existing park space will have to be more intensively developed. Blair Park does not appear to be suitable for such activities.

Other Open Space Areas

In addition to the parkland identified above, there are several other open space areas within the City that are not owned by the City or the school district. These include: Tyson Lake, which is privately owned and not accessible to the public; Reservoir No. 2, which is owned by East Bay Municipal Utility District; and a portion of Mountain View Cemetery which is undeveloped at the present time. Adjacent to the cemetery property is the City of Piedmont's corporation yard. The cemetery property offers the only real opportunity to provide additional parkland.

Moraga Canyon Area

Undeveloped area adjacent to Moraga Canyon includes the Mountain View Cemetery Association Property, the City of Piedmont's corporation yard and undeveloped Blair Park. There is a need to consider alternative land uses for this area on a comprehensive basis and coordinate future development proposals. Possible land use alternatives include the following:

- (1) Parks and recreation (whether through development of Blair Park and/or expansion onto the cemetery property);
- (2) Corporation yard (whether continued in present location or relocated to Blair Park site);
- (3) Housing (examine potential on Blair Park site); and
- (4) Open space (continuation of status quo).

Evaluation of each land use alternative will need to take into account the following factors:

- (1) Treatment of and improvements to Moraga Avenue;
- (2) Suitability of sites with respect to steep slopes, landslide susceptibility, soil stability, noise exposure and flooding potential in the event of a dam failure; and
- (3) Feasibility of negotiating appropriate agreements with the Mountain View Cemetery Association.

EDUCATIONAL AND CULTURAL FACILITIES

Given the City of Piedmont's unique residential character and small size, City residents could not support many of the educational and cultural facilities that are available to the community due to its location in the greater Oakland area. The San Francisco Bay Area provides a rich and irreplaceable collection of cultural resources which Piedmont residents have available to them. Although many are located within the city limits of Oakland, they are for all to use.

The Piedmont Unified School District provides an excellent primary and secondary educational system, and residents seeking higher education will find a number of colleges and universities within commuting distance of the City of Piedmont. Opportunities for enhancing the availability of educational and cultural facilities to Piedmont residents are discussed below.

PUBLIC SCHOOLS

The excellent public school system in the City of Piedmont had modest beginnings. At the time of the City's incorporation in 1907, the schools were unable to cope with the demand and many pupils from the "Piedmont Sanitary District" continued to attend the Oakland schools with payment of the \$25 annual fee. When the Piedmont School District was formed, it adopted the same boundaries as those of the City but with administrative and taxing power completely independent of the City Council. Today, although the City of Piedmont and the Piedmont Unified School District are separate entities, the two are highly interdependent. The City's schools contribute greatly to the quality of life in the City. There are increasing opportunities for the two entities to share facilities and service.

School Site Utilization

The following summarizes existing facilities and present uses of the school sites.

School Sites

- Piedmont High School located in the Civic Center area on Magnolia at Bonita adjacent to Piedmont Park. The school facilities include classrooms, a library, an auditorium (the Alan Harvey Theater), a student center, a gymnasium, a band room and a sports field. The Alan Harvey Theater provides the City's largest indoor facility for public meetings and performances. The sports field, the City's largest, consists of a football stadium, running track and baseball field. The high school houses the school district offices and serves as the site for both the Piedmont Independent Learning High School and the Piedmont Adult School.
- Piedmont Middle School located adjacent to the high school at Magnolia and Hillside. The school facilities include classrooms, a library, a gymnasium and about .75 of an acre of paved playground.

- Egbert W. Beach School located on Lake at Linda in the western part of the City. The school facilities include classrooms, a library, an auditorium and about 1.3 acres of paved playground. The site houses special education programs and a Schoolmates Program operated by the City.
- Frank C. Havens School located on Oakland Avenue at Bonita. The school facilities include classrooms, a library, an auditorium (the Ellen Driscoll Playhouse) and about 1.5 acres of paved playground. The site houses a Schoolmates program and adult education programs.
- Wildwood School located on Wildwood Avenue at Portsmouth. The school facilities include classrooms, an auditorium and about two-thirds of an acre of paved playground. The site houses a Schoolmates program.

Enrollment and Capacity

Enrollment in the 1992-93 school year is provided for each school level below:

Elementary School	1,217
Middle School	541
High School	565
Piedmont Independent Learning	26
Special Day Class	<u>16</u>
Total	2,365

These figures can be compared to one of the lowest enrollment years, 1984-85, when there were 1,905 students in Piedmont schools. The breakdown was 760 in elementary and 1,145 in middle and high school. Enrollment in the elementary school level has steadily increased over the past ten years while enrollment in the middle school had held steady and the high school level has declined slightly.

Current Special Uses of Facilities

Current special activities conducted at District facilities are as follows:

- (a) Educational - Adult Education.
- (b) Recreational - After-school sports; youth league sports (baseball, soccer, basketball); summer playground.
- (c) Miscellaneous - Elementary foreign languages.

City/School Cooperation

Joint Use

There is extensive sharing of facilities between the City and schools. City use of schools consists primarily of Recreation Department uses for supplementary education and adult education classes, before- and after-school activities, Schoolmates (day care) and league sports. Most of these activities are youth-oriented and contribute to the overall educational experience for the participants. The School District and school support organizations are allocated seven uses per year of City facilities for fund raising and other activities. In addition, the City provides certain services, including Middle School Sports Program, School Resources office, DARE and crossing guards to the schools and for school-related fund raising activities.

Terms of Joint Uses

Agreements between the City and the District for use of facilities were formalized after years of considering the charges “balanced out”. An agreement for Joint Use of Facilities was signed by both parties May, 1986 which states that fees will not be levied for use for City of District facilities. Fees are levied for the use of classroom space for the Schoolmates Program as spelled out in the October, 1987 amendment to the Joint Use Agreement. Where a City department collects fees for its activities upon school property, such income goes to the City. These fees defray the City’s costs for putting on the activity, but do not contribute to the short- or long-term costs of operating the facility.

Under state law, the “Civic Center Act”, the charges levied by one civic agency upon another are limited to the cost of opening the facility over and above normal operating costs. These excess costs may include janitorial services, but long-term costs such as mortgage, maintenance, and insurance (unless affected by the additional use) cannot be prorated against all users. Under the current agreement, maintenance and janitorial services are provided for by the District for facilities unless there has been an agreement made in advance of the use of the facility.

Planning Considerations

Grass Playfields

One of the City of Piedmont’s greatest recreation needs is grass playfields. The high school field suffers from overuse and cannot be maintained in good condition. Linda Beach Playfield was completed in 1990. The park consists of two play areas, a large grass field and two tennis courts. The park is used by the school, the City recreation department, as well as outside sports leagues such as soccer and baseball. A new sports field is located in the vicinity of the existing City corporation yard at the intersection of Moraga Avenue and Red Rock Road. Coaches’ Playfield at Moraga Canyon has a combination soccer and baseball field. The field was completed in the spring of 1993.

Population Growth and School Enrollment

City decisions that would tend to increase the population of school-age children would have a beneficial effect on the schools. This is because state funding is based upon average daily attendance and larger enrollment facilitates more efficient operations.

Financial Constraints

The School District, like many other institutions that depend on the state for a large portion of their funding, has been hit hard by the state budget. In response to the reduction in funding, the City of Piedmont and School District have passed parcel tax increases. These increases occurred in 1985, 1989 and 1993.

In the past, funding reductions such as the “Serrano Priest” Supreme Court Decision and Proposition 13 have caused the School District to rely on the Piedmont Education Foundation support to maintain programs.

The Piedmont Educational Foundation is a private non-profit organization created to support and encourage academic excellence. During the period between 1981 and 1985, the Piedmont Educational Foundation raised \$1.5 million dollars to underwrite the School District budget in order to maintain the standard of excellence associated with the Piedmont School District and its programs.

Currently, the role of the Piedmont Educational Foundation has not been one of maintenance, but one of education enrichment.

Quality of Education

The Piedmont school system is considered by many residents to be the City’s greatest asset. Its reputation for excellence has attracted many home buyers. It is estimated that the market value of a Piedmont home is about 25 to 30 percent higher than an equivalent home in a similar neighborhood, in another city, with much of this difference attributable to the quality of the schools.

LIBRARY SERVICE

Existing Arrangements

City library service has been provided to Piedmont resident for many years by the Oakland Public Library System. In June, 1984, Piedmont and Oakland entered into a new contract continuing uninterrupted library services. It is a parity contract in which Piedmont pays the same per capita rate as Oakland citizens, with an annual maximum increase of \$10,000 until parity is achieved. The contract has no term and can be canceled once a year. There also is as provision that if Piedmont develops a library, the Piedmont residents could still use the Oakland library and Oakland residents would be able to use the Piedmont library. At that time, payment between the two cities would be based on net usage.

On several occasions, the City has formally studied the feasibility of creating a public library in Piedmont. These studies resulted in the decision to continue the library services arrangement with Oakland, in part because it was more economical given the relatively modest annual service charges by the City of Oakland.

The current contract, based on three percent of the Oakland Library budget, specifies the following payments by Piedmont:

1989-90	\$160,000.00
1990-91	170,000.00
1991-92	180,000.00
1992-93	190,000.00

CHURCHES

The churches designation provides the location of churches in the City of Piedmont. There are five churches located in the City. They are the First Church of Christ Scientist and Reading Room at 801 Magnolia Avenue; Piedmont Community Church at 400 Highland Avenue; Corpus Christi Catholic Church at 322 St. James Drive; Piedmont Neighborhood Church at 1300 Grand Avenue; and Zion Lutheran Church at 5201 Park Boulevard. The Corpus Christi Catholic Church and the Zion Lutheran Church provide parochial schools for the elementary school level and the middle school level.

CIVIC FACILITIES

The civic facilities designation provides the location of civic facilities in the City of Piedmont. Civic facilities include City Hall, the Veteran's Memorial Building, the Piedmont Community Center (included in the park and open space acreage) and the Recreation Center. The facilities are collectively referred to as the Civic Center and are centrally located within a two-block area on Highland Avenue adjacent to Piedmont Park and a commercial district. All City services are located within this area with the exception of the Public Work Maintenance Department.

UTILITIES

The utilities designation provides the location of public utilities in the City of Piedmont. Public Utilities that operate in the City of Piedmont include the East Bay Municipal Utility District (EBMUD) and the Pacific Gas and Electric Company (PG&E). EBMUD operates three facilities which includes the Piedmont Reservoir and the Estates Pumping Station located on the same site west of Blair Avenue between Scenic Avenue and Harbord Avenue in Oakland; and the Grand Avenue Pumping Station which is located on Grand Avenue.

SECTION F

CIRCULATION BACKGROUND INFORMATION

CIRCULATION BACKGROUND INFORMATION

INTRODUCTION

Circulation refers to the various modes of movement and the ease and safety of such movement within a transportation system. In the City of Piedmont, the transportation system includes the street network, transit routes, bikeways, pedestrian pathways, sidewalks and parking facilities. The following identifies existing problems and proposes improvements to the transportation system. It also defines standards and criteria for the location, design, operation, and levels of service for each circulation mode.

ROADWAY NETWORK

Roadway Widths

The City of Piedmont contains approximately 141 streets with a combined length of about 47 miles. An analysis of the roadway network in 1983 determined that over one-half of the street system was either marginally adequate (due to deficient roadway widths) or inadequate (due to deficient right-of-way widths). Exhibit F-1 provides the roadway widths as determined in 1983 and verified in 1994. The survey classed streets in three categories:

- Inadequate Streets
(roadway width of 20 feet or less and/or deficient right-of-way)
- Marginally Adequate Streets
(roadway width of 20 feet to 35 feet)
- Adequate Streets
(roadway of 35 feet or over)

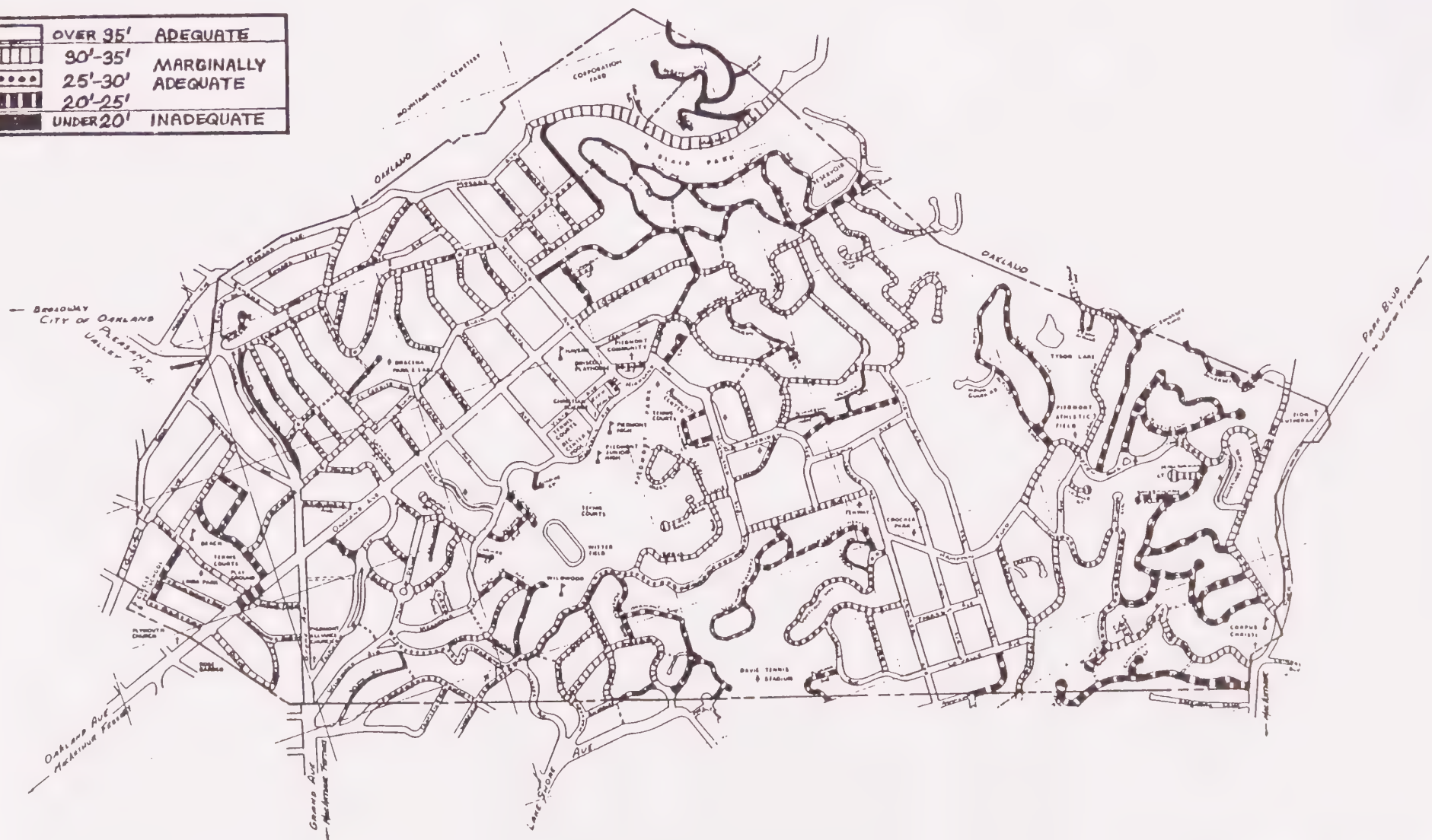
The following provides a discussion of these categories of streets.

Inadequate Streets

The streets identified as inadequate generally occur in the hill areas of Piedmont. They generally have roadway widths of less than 20 feet which is inadequate for two lanes of traffic. Examples are Abbott Way (10-foot roadway), Maxwellton Road (12 to 16-foot roadway), and portions of Pala Avenue and Scenic Avenue (20-foot roadways). Some streets do not have curbs and the roadway narrows as erosion of the surface occurs. Streets are generally limited to a single traffic lane if cars are parked on the roadway.

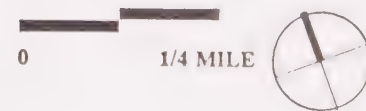
Although these streets comprise less than 10 percent of the total in the City of Piedmont, they present a challenge in that steep topography and proximity of structures to the streets make it almost impossible to substantially change the roadway width. Planting strips of three to five feet occur along several streets and could be utilized for roadway widening in some instances.

	OVER 35'	ADEQUATE
	30'-35'	MARGINALLY ADEQUATE
	25'-30'	ADEQUATE
	20'-25'	
	UNDER 20'	INADEQUATE



ROADWAY WIDTHS

CITY OF PIEDMONT GENERAL PLAN



Marginally Adequate Streets

The marginally adequate streets are generally 20 to 35 feet in width. If cars are parked on both sides of a 30-foot roadway (assuming a seven-foot width for each), the driving lanes are reduced to eight feet each. This can be hazardous, particularly if the road has some curvature. Parking on one side of the street can be equally hazardous if the roadway is less than 25 feet wide.

About half of the City of Piedmont's streets are marginally adequate. In a number of instances, streets have very narrow roadways, but are situated in wider rights-of-way. As of 1994, the City has no funding mechanism for road widening and, in many instances, proximity of structures would present a problem in roadway widening.

Adequate Streets

The adequate streets are generally wider than 35 feet and can accommodate two lanes of traffic as well as parking on both sides of the street. Although these streets are classified as adequate related to the provision of travel lanes, they may be less than adequate considering the volume of traffic.

Traffic Volumes

In June 1994, Traffic Counts, Inc. conducted 24 hour machine counts for 25 streets in the City of Piedmont. The summary reports for the machine counts are provided at the end of this section. Table F-A provides the average daily traffic volumes for 1977, 1983, and 1994. The 1994 average daily traffic volumes on major streets are indicated on Exhibit F-2. A comparison of traffic counts in 1977, 1983, and 1994 shows that the majority of the segments shown have an increase of 10 percent or greater since 1977.

Street Classification System

There is no existing comprehensive classification of City streets. According to the subdivision ordinance, "the City Council shall determine which streets shall be classed as thoroughfares, secondary thoroughfares or minor streets" (Section 19.10 Piedmont City Ordinance). Related definitions are:

"Thoroughfares shall be a width ... not less than fifty feet in width."

"Secondary thoroughfares and minor streets shall be not less than forty-five feet in width, unless a lesser width is specifically established by resolution approved by four-fifths of the City Council but in no event may such width be less than thirty feet between curbs."

A rigorous classification of streets, according to the above categories, together with consideration of traffic volumes, has never been undertaken.

Table F-B sets forth criteria which have been used in developing the functional street classification system. Table F-C provides the specific street classification criteria by functional type, average daily traffic volume, lane design, and roadway width. Table F-D provides the design standards for both hill areas and other areas. Based on the above criteria, the functional street classification is delineated on Exhibit F-3.

TABLE F-A

**CITY OF PIEDMONT
AVERAGE DAILY TRAFFIC VOLUMES**

LOCATION		LOCATION NUMBER IN PREVIOUS GENERAL PLANS	1977	1983	1994
1	Pleasant Valley Avenue at Moraga Avenue in the City of Oakland (at northwest border of City of Piedmont)	1	6,923	*	13,077
2	Grand Avenue between Cambridge Avenue and Oakland Avenue	4	*	11,066	12,318
3	Oakland Avenue between Grand Avenue and Howard Avenue	6	7,860	8,236	9,565
4	Moraga Avenue between Highland Avenue and Bonita Avenue	11	8,320	8,224	11,333
5	Moraga Avenue between Maxwelton Road and the northeast border to the City of Oakland	13	11,412 (1979)	11,864	13,180
6	Highland Avenue between Moraga Avenue and Park Way	14	7,430	8,038	9,281
7	Highland Avenue between Craig Avenue and Oakland Avenue	15	*	8,463	8,009
8	Highland Avenue between Sierra Avenue and Piedmont Court	16	5,300	5,721	7,625
9	Sheridan Avenue between Lakeview Avenue and Richardson Way	18	*	2,582	2,855

LOCATION		LOCATION NUMBER IN PREVIOUS GENERAL PLANS	1977	1983	1994
10	Crocker Avenue between La Salle Avenue and Ashmount Avenue (at southeast border of the City of Piedmont)	20	2,620	2,456	2,489
11	Estates Drive between Park Boulevard and Sandringham Road (at southeast border of the City of Piedmont)	24	1,960	2,254	3,000
12	Trestle Glen Road between Park Boulevard and Cavanaugh Court (at southeast border of the City of Piedmont)	25	1,620	1,676	1,252
13	St. James Drive between Park Boulevard and Croydon Circle (at southeast border of the City of Piedmont)	26	1,040	1,582	1,768
14	La Salle Avenue between Somerset Road and Hampton Road (at northeast border of the City of Piedmont towards Tyson Circle)	28	*	*	2,118
15	Magnolia Avenue between Bonita Avenue and Hillside Avenue	37	*	2,052	2,361
16	Linda Avenue between Kingston Avenue and Lake Avenue	40	*	6,088 (1982)	7,189
17	Boulevard Way between Crofton Avenue and Crofton Avenue (at southwest border of the City of Piedmont)	49	1,500	*	1,609
18	Maxwelton Road between Nellie Avenue and below Hilltop Crescent (in the City of Oakland)	*	*	*	291

LOCATION	LOCATION NUMBER IN PREVIOUS GENERAL PLANS	1977	1983	1994
19 Estates Drive between Somerset Road and Hampton Road	*	*	*	2,601
20 Hampton Road between Indian Road and St. James Drive	*	*	*	3,613
21 Crocker Avenue between Wildwood Avenue and Hampton Road	*	*	*	4,136
22 Grand Avenue between Fairview Avenue and Wildwood Avenue (at intersection of Wildwood Avenue)	*	*	*	16,595
23 Oakland Avenue between Bonita Avenue and Highland Avenue	*	*	*	8,316
24 Linda Avenue between Grand Avenue and the Oakland Avenue Bridge	*	*	*	3,791
25 Mountain Avenue between Sharon Avenue and Dormidera Avenue	*	*	*	1,174

Source: City of Piedmont General Plan, 1984 and Traffic Counts, Inc., 1994.

* Not measured in the previous General Plans.



1994 AVERAGE DAILY TRAFFIC VOLUMES

TABLE F-B
CITY OF PIEDMONT
FUNCTIONAL STREET CLASSIFICATION

Functional Type	Definition
Arterial	Primary purpose is to carry traffic between freeways and major collectors or other arterials; serves area larger than Piedmont and thus carries significant amount of through traffic.
Major	Primary purpose is to carry traffic between arterials and minor collectors or other major collectors; serves important local traffic generators.
Minor	Primary purpose is to carry traffic between major collectors and local access streets or other minor collectors; serves local traffic generators; may also serve as bus route.
Local Access	Primary purpose is to provide access to abutting properties.

Source: City of Piedmont General Plan, 1984.

TABLE F-C
CITY OF PIEDMONT
STREET CLASSIFICATION CRITERIA

Functional Type	Average Daily Traffic Volume	Lane Design	Roadway Width
Arterial	8,000 and over	P4P	50 foot and over
		4	40 foot - 50 foot
		P2P	35 foot - 40 foot
Major Collector	3,000 - 8,000	P4P	50 foot and over
		4	40 foot - 50 foot
		P2P	35 foot - 40 foot
Minor Collector	1,000 - 3,000	P2P	35 foot - 40 foot
		2P	25 foot - 35 foot
Local Access	less than 1,000	P2P	35 foot - 40 foot
		2P	25 foot - 35 foot
		2	20 foot - 25 foot
		1P	15 foot - 10 foot

Source: City of Piedmont General Plan, 1984.

Notes:

P4P = Four vehicular lanes and one parking lane on either side.

P2P = Two vehicular lanes and one parking lane on either side.

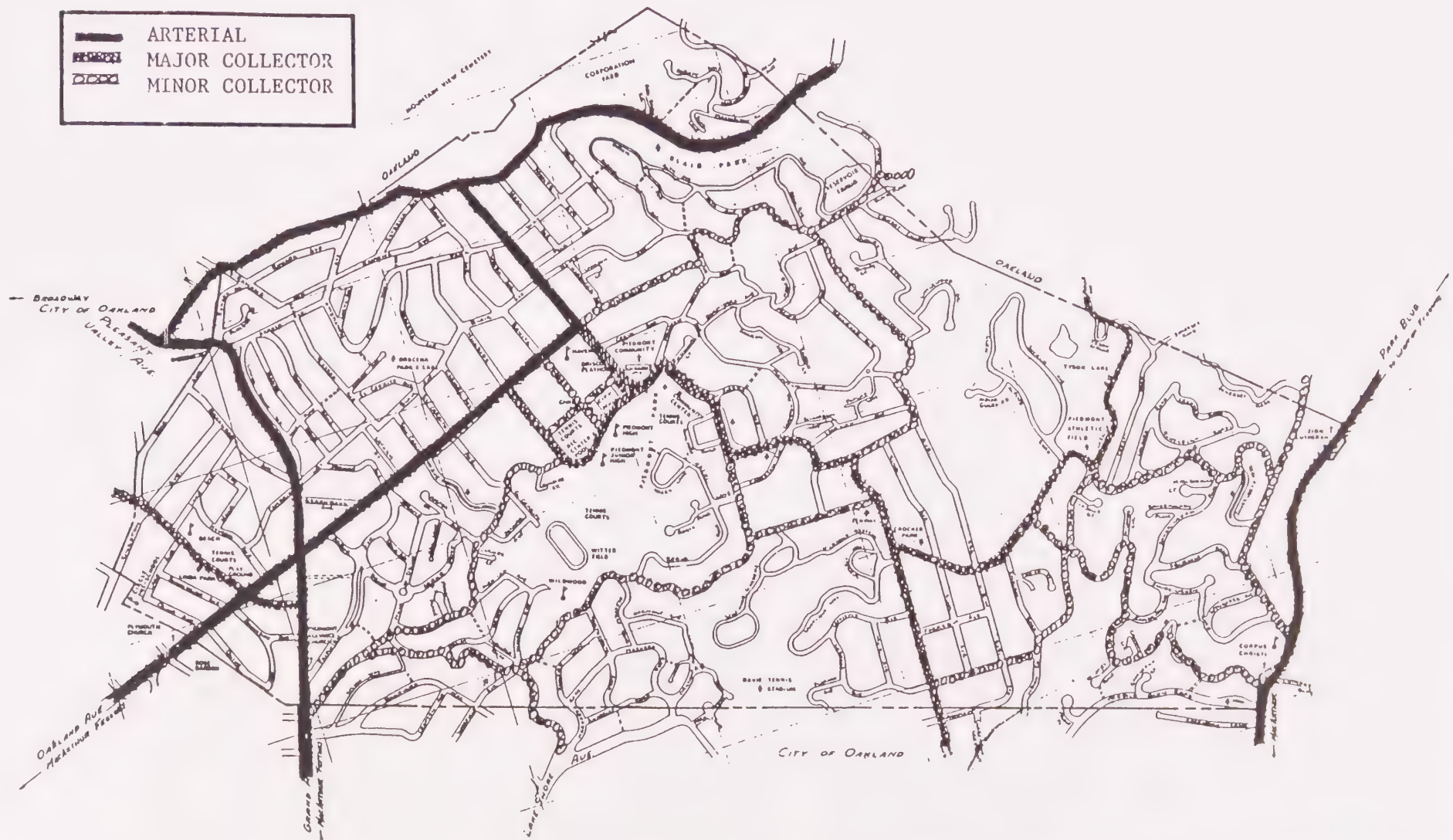
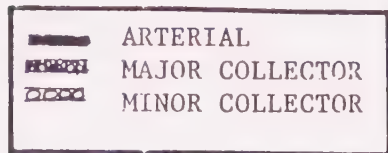
2P = Two vehicular lanes and one parking lane.

1P = One vehicular lane and one parking lane.

4 = Four vehicular lanes.

2 = Two vehicular lanes.

1 = One vehicular lane.



FUNCTIONAL STREET CLASSIFICATION

TABLE F-D
CITY OF PIEDMONT
DESIGN STANDARDS

Lane Widths	Lane Design	Roadway Width
Hill Area	1	10-foot - 12-foot
7-foot/10-foot/10-foot/7-foot	1P	17-foot - 19-foot
	2	20-foot - 24-foot
	P1P	24-foot - 26-foot
Other Areas	2P	27-foot - 31-foot
7-foot/12-foot/12-foot/7-foot	P2P	34-foot - 38-foot
	4	40-foot - 48-foot
	P4P	54-foot - 62-foot

Source: City of Piedmont General Plan, 1984.

Notes:

P4P = Four vehicular lanes and one parking lane on either side.

P2P = Two vehicular lanes and one parking lane on either side.

2P = Two vehicular lanes and one parking lane.

1P = One vehicular lane and one parking lane.

4 = Four vehicular lanes.

2 = Two vehicular lanes.

1 = One vehicular lane.

Street Maintenance

In September, 1984, the City Council adopted the Pavement Management Study by Harris and Associates, Inc., June, 1984. The study involved the accumulation of all pertinent data regarding the City of Piedmont street network. Based on the study, the City increased maintenance expenditures to approximately \$350,000 per year. The City continues to update the study as the repairs are completed.

PUBLIC TRANSIT

For decades, the City of Piedmont has been notable as one of the primary commuting outposts of San Francisco. Business and professional persons employed in San Francisco found residence in Piedmont advantageous and convenient even before construction of the Bay Bridge. At that time, connections with the ferry boats were made by the B electric carline from Trestle Glen and the C line on Piedmont Avenue. In 1924, the latter was extended to the Piedmont rail terminus at Oakland Avenue and Latham Avenue. Following completion of the Bay Bridge in 1938, the Key System established direct rail service on both lines to San Francisco. Due in part to the commuting convenience of transportation by private automobile, the Key System rail service to San Francisco came to an end in 1958. The State Public Utilities Commission, because of decreasing patronage, allowed the transit company to substitute buses along the approximate routes of the B and C trains.

For many years local public transit in the City of Piedmont consisted of extensions of the Key System streetcar lines serving Oakland. The Lakeshore line served a segment in the south portion of the City, the Grand Avenue line extended along Fairview to Jerome, and the line from downtown Oakland along Oakland Avenue circled via Linda to Piedmont Avenue along company right-of-way to a terminus at Crocker Avenue. These streetcar lines were abandoned by the Key System Company after World War II and bus service substituted along approximately parallel routes.

Existing Routes

The City of Piedmont, along with other East Bay cities, is served by the Alameda/Contra Costa Transit District (AC Transit). Existing lines which serve the City of Piedmont are listed below and their routes are delineated on Exhibit F-4.

Line 2 - Highland Avenue to Lakeshore Avenue

Line 3 - Highland Avenue to Blair Avenue

Line 4 - Highland Avenue to Estates Drive

Line 11 - Highland Avenue to 19th Street BART Station

Line 12 - Grand Avenue to MacArthur BART Station

Line 16 - Highland Avenue to Rockridge BART Station

- ② Highland Avenue to Lakeshore Avenue
- ③ Highland Avenue to Blair Avenue
- ④ Highland Avenue to Estates Drive
- ⑪ Highland Avenue to 19th Street BART Station
- ⑫ Grand Avenue to MacArthur BART Station
- ⑯ Highland Avenue to Rockridge BART Station
- ③ Piedmont at Highland Avenue to San Francisco
- CH Piedmont at Oakland Avenue to San Francisco



BUS ROUTES

Line C - at Highland Avenue to San Francisco (Non-Peak Hours)

Line CH - at Oakland Avenue to San Francisco (Peak Hours - Express Bus)

Levels of Service

Levels of service are based on a number of factors including population density, ridership distance and budgetary constraints. In 1990, the City of Piedmont had an average density of 8,748 persons per square mile (of residential acreage), while the areas to the west in the City of Oakland had an average of over 10,500 persons per square mile.

Future Plans

AC Transit, recognizing changes in travel patterns, land use, and travel demand, has developed a comprehensive service plan for District 1, which includes the City of Piedmont. Goals of the plan are to redesign the system to anticipated demand. The Comprehensive Service Plan (CSP) 1991-1999 identified the following as a future projection of service to the Piedmont area:

Piedmont and Oakland Hills

The highlands of Oakland and Piedmont are unsuited for grid service, since populations densities are low and geographical constraints are severe. Instead, the CSP will introduce a small timed-transfer system based at the new Montclair Transit Center, located near the interchange of Highway 13 and Park Boulevard. Local routes serving residential areas of Piedmont and Montclair will make timed connections with direct routes to Oakland, Berkeley, Rockridge BART, Emeryville and Merritt College.

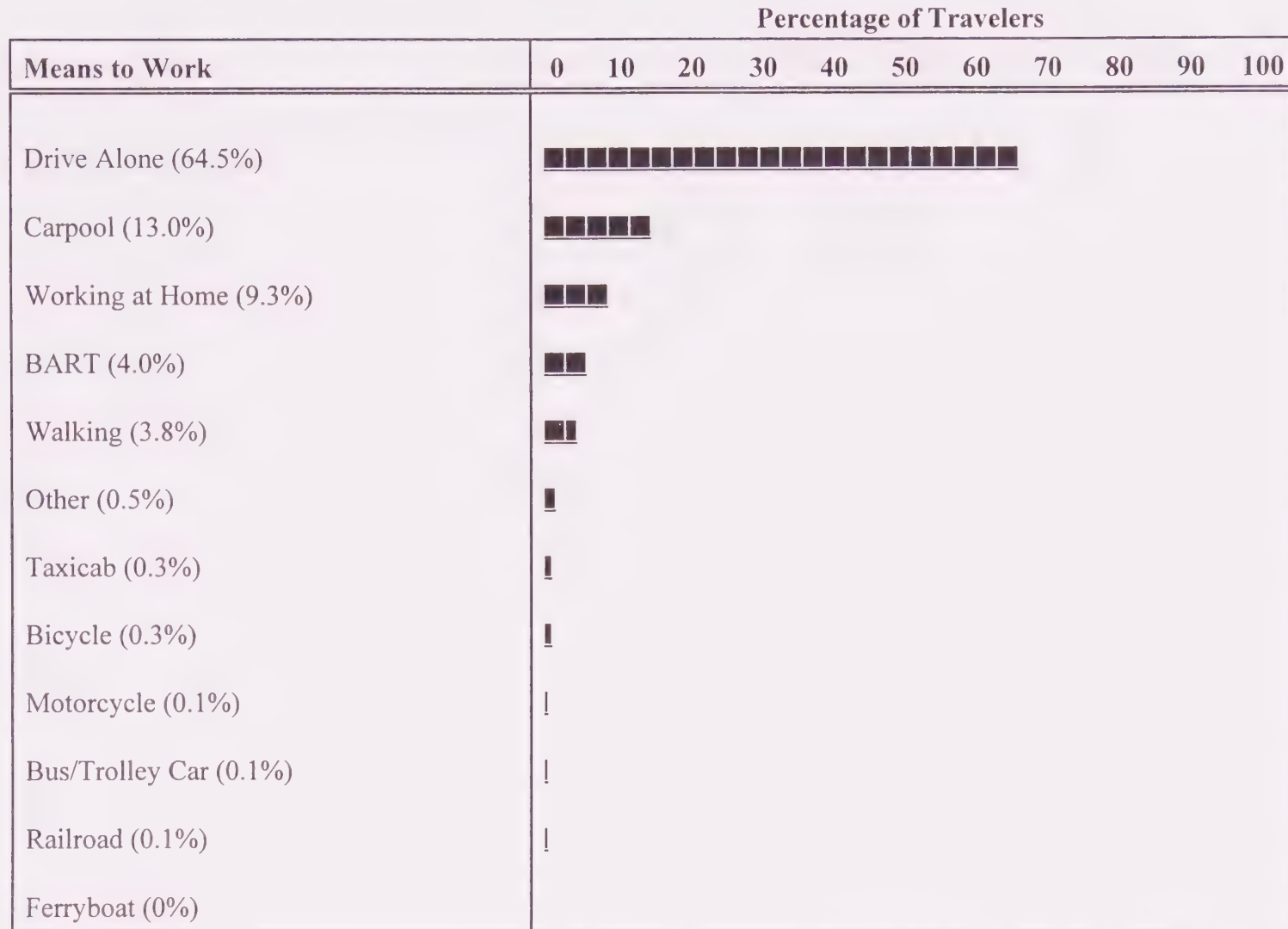
Some neighborhoods on the west side of Piedmont and in the East Oakland hills will also be served by local van routes. These routes will provide service to transfer points on MacArthur Boulevard, for local, downtown, and transbay connections.

Each year all routes are evaluated on the basis of utilization. Factors, in addition to the population density in the area served, include passengers per mile and the subsidy per passenger. Due to budgetary constraints, AC Transit may have to eliminate some lines or alter routes which service the City of Piedmont. The routes and/or schedules that may be affected have not been confirmed. Both the C and CH Transbay routes are very well utilized and have long established use patterns. City-wide, approximately 8.5 percent of commuters in 1990 used public transit. Exhibit F-5 provides the percent of commuters that used public transit in 1990.

Local Transit-Related Problems

Two problems associated with the transit routes are parking in the vicinity of the bus stops, particularly the express bus stops, and noise generated by the larger buses.

MEANS OF TRANSPORTATION TO WORK



Source: U.S. Department of Commerce, Bureau of Census, 1990.

One option for controlling parking is a "park and ride" lot. Another option would involve certain restrictions on parking in the affected areas. These alternatives are discussed below in the section on parking.

Relative to noise generation by buses, there is a general trend toward using smaller buses. This is likely to result in a decrease in the noise level generated by buses in the future years.

CARPOOLING

In addition to traditional public transportation, there is "casual" or "ad hoc" carpooling that takes place between the City of Piedmont and San Francisco. This carpooling competes with the AC Transit morning commute routes and has resulted in a decrease of morning service on the CH Line.

Cars with three or more individuals can use the carpool lanes to bypass the toll plaza and avoid the toll at the Bay Bridge to San Francisco. Carpooling occurs through an informal system of picking up riders at a primary pickup point at the corner of Highland Avenue and Oakland Avenue and at other points (usually bus stops) down Oakland Avenue into Oakland. Since the informal carpool system does not occur during the return commute, most casual carpool riders return in the afternoon on AC Transit or on BART.

BIKEWAYS

Bikeways can take a variety of forms, but three types are recognized for planning purposes:

- Class I - A completely separated right-of-way designated for the exclusive use of bicycles and pedestrians (bike path);
- Class II - Restricted right-of-way designated for the exclusive or semi-exclusive use of bicycles with through travel by motor vehicles or pedestrians prohibited, but with vehicle parking and cross-flows by pedestrians and motorists permitted (bike lane);
- Class III - A right-of-way designated by signs or permanent markings and shared with pedestrians or motorists (bike route).

There are currently no designated bikeways in the City of Piedmont. Designations are important if the City of Piedmont plans to construct bikeways in the future due to the increase in Federal and State funding sources that are available to cities with an adopted bicycle plan. The City of Piedmont is included on the Alameda County Bicycle Master Plan which was defined in September 1986. The bikeways that are indicated for the City of Piedmont include a portion of Trestle Glen and a portion of Park Boulevard, both of which are located on the southernmost borders of the City.

Funding Sources

Proposition 116

The Clean Air and Transportation Improvement Act (CATIA) makes available \$20 million to fund a program of competitive agencies for capital outlay for bicycle improvement projects which improve safety and convenience for bicycle commuters. The lead agency for the coordination of Proposition 116 funds is the California Department of Transportation (Caltrans).

Transportation Development Act, Article III Funds

Certain Transportation Development Act Article III Funds (TDA, Article III) are available to counties and cities for facilities for the exclusive use of pedestrians and bicycles. The lead agency for coordination of TDA III funds is Alameda County.

Intermodal Surface Transportation Efficiency Act Funds (ISTEA)

The 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) provides \$151 billion for transportation improvements over six years to cities and counties. ISTEA establishes 15 factors that must be considered in the development of an application for funds. One factor, defined as transportation enhancement activities, specifies provision of pedestrian or bicycle facilities. The lead agency for coordination of ISTEA projects for Alameda County is the Alameda County Congestion Management Agency.

Prior to preparation of a Bike Route Plan or endorsement of proposed routes, the City should investigate the general question of liability when there are designated routes and evaluate each proposed route in terms of adequacy of affected streets. An approved Bike Route Plan must meet certain criteria related to physical layout, path cross-sections and construction. A bike route is a Class III facility. In general, in order for a street to accommodate a parking strip and bike lane, there must be at least a 12 foot wide margin. The typical motor vehicle lane next to a bike lane is 12 feet. There are few streets in Piedmont that would be able to accommodate parking, a bike lane, and motor vehicles in the same right of way.

The East Bay Bicycle Coalition (EBBC), based in Oakland, is an organization which has worked extensively with Caltrans and with other municipalities to establish a coordinated series of bike routes from Hayward to El Cerrito. EBBC has published a bike route map entitled "Commute Routes of the East Bay".

The following are routes that traverse Piedmont and are identified in the 1986 version of "Commute Routes of the East Bay":

- Grand Avenue - from Lake Merritt to Linda Avenue;
- Linda Avenue - between Grand Avenue and Piedmont Avenue;
- Moraga Avenue - between Pleasant Valley and Highland Avenue;
- Highland Avenue - between Moraga Avenue and Wildwood Avenue;

- Wildwood Avenue - between Grand Avenue and Crocker Avenue;
- Crocker Avenue/Hampton Road/St. James Drive - between Park Boulevard and Wildwood Avenue; and
- Park Boulevard.

PEDESTRIAN PATHWAYS

There are numerous pedestrian pathways in the City of Piedmont. Exhibit F-6 provides the general location of the pedestrian pathways. Many are located in the hill areas where they serve as an alternative to sidewalks that follow long winding streets or to no sidewalks at all. These pathways sometimes present problems of surveillance and maintenance. The result of a survey of the pedestrian pathways by the Police Department are summarized in Table F-E. Problems encountered with pathways are resolved on a case-by-case basis.

The rating system used in the survey was subjective (10 is best, 1 is worst) and based on the following factors:

- Accessibility
- Safety in traversing the pathway (debris and foliage growth)
- Crime statistics
- Aesthetics
- Privacy afforded to the homeowners who border the pathway
- Configuration of homes next to pathway
- Degree to slope or bends in pathway

The Public Works Department is responsible for pathway maintenance. The pathways are maintained on a regular basis. Overgrowth of vegetation from individual properties that encroach upon the pathways are the maintenance responsibility of the homeowner.

SIDEWALKS

Maintenance of sidewalks has been a difficult problem in the City of Piedmont, principally because of the damage done by street trees. Roots of the trees literally lift up and crack many large sections of sidewalk. The resulting vertical displacements between sidewalk sections can be a serious hazard and are also unsightly.

The maintenance and repair of sidewalks is the responsibility of the individual homeowner. The City has taken two steps toward keeping sidewalks in proper repair. First, City ordinances require that when a home is sold or work is performed for which a building permit is required and the work costs more than \$5,000, a sidewalk inspection is required. Any deficient sidewalk must be repaired by the homeowner. Second, the City has commenced its own replacement program where the sidewalk has been damaged due to City street trees.



PEDESTRIAN PATHWAYS

TABLE F-E
CITY OF PIEDMONT
PEDESTRIAN PATHWAYS

	Location	Length	Visible From Street	Rating*
1.	Between 300-304 Ramona to Park Way	107 feet	Yes	7
2.	Between 61-65 Arroyo to Ramona	106 feet	Yes	10
3.	Between 33-37 Artuna to Monticello	169 feet	Yes	4
4.	Between 68-102 York to Ricardo	272 feet	Yes	2
5.	Between Pala and Scenic	161 feet	Yes	5
6.	Between Scenic and Scenic	163 feet	Yes	2
7.	Between 350-354 Blair to Scenic	281 feet	No	3
8.	Between 622-630 Blair to Pacific	210 feet	No	2
9.	Between 22-27 Piedmont Court to Mountain	89 feet	Yes	6
10.	Between 17-29 Sierra to Mountain	217 feet	Yes	8
11.	Between 129-131 Guilford to Hazel	153 feet	No	4
12.	Between 124-128 Hazel to City Park	102 feet	Yes	6
13.	Between 50-58 Fairview to Nova	249 feet	No	6
14.	Between End of MacKinnon to Arbor	110 feet	No	6
15.	Between 144-200 Magnolia to Palm	246 feet	Yes	5
16.	Between Next to 220 Wildwood to Ranleigh	197 feet	Yes	6
17.	Between 1155-1159 Harvard to alley	110 feet	Yes	8
18.	Between 50-60 St. James Place to Trestle Glen	120 feet	No	8
19.	Between Across 253 St. James Drive to Cambrian	104 feet	No	7
20.	Between 244-254 St. James Drive to Sandringham	206 feet	No	6
21.	Between 289-297 St. James Drive to Trestle Glen	151 feet	Yes	8
22.	Between End of Lorita to Monticello	205 feet	No	2

Source: City of Piedmont General Plan, 1984.

* Rating is based on survey by the Police Department

PARKING

Parking problems exist throughout the City. The most visible problem is the shortage of available on-street parking in specific residential areas and the Civic Center area. This shortage is due in large part to the lack of off-street parking. In residential areas, inadequate parking is a result of: minimal or nonexistent off-street parking requirements at the time of development (mainly during the 1920s); the small size and frontage of lots; and narrow roadways in the hill areas which do not safely allow on-street parking. In commercial areas, inadequate parking is a result of not requiring adequate off-street parking at the time of development or subsequent improvements or changes in use. These problems, as well as more localized problems, are discussed further in the following paragraphs.

Civic Center Area

Demand for parking in the Civic Center area is very high because of the number and variety of major traffic generators concentrated in a relatively small area. These land uses include: the City Hall, including the fire and police departments; the school district offices, high school, middle school, and an elementary school; the recreation center, including the swim club and tennis courts; the Community Hall located in Piedmont Park; the Veterans Building; several churches; and neighborhood commercial establishments.

The supply of parking spaces is very limited. With few exceptions, there is no off-street parking provided in this area. As a result, all of the demand not accommodated through on-street parking within the area spills over into surrounding residential neighborhoods. Most of the on-street parking is currently restricted in some manner (such as two-hour time limits, reserved for teachers, reserved for City employees, etc.) during the day.

Because of the variety of activities and functions occurring within the area, parking is difficult at most any time during the day or evening (business hours, regular school hours, adult school hours, night meetings or gatherings, recreational activities).

In 1988, the City of Piedmont Public Works Department completed a comprehensive study of the Civic Center area. The purpose was to provide ideas and options to increase parking availability for the area. The alternatives suggested included:

- Parking Structure - Vista Avenue Tennis Courts
- Parking Lot - Vista Avenue Tennis Courts
- Remove Carriage House and Construct Larger Parking Lot
- Purchase Private Property for a Parking lot
- Park and Ride Facility at Moraga at Blair Park
- Diagonal Parking on Various Streets in the Civic Center Area
- Reduce/Modify Restrictions - On Street Parking
- Compact Spaces
- Part-Time Parking Lot - Haven's School Playground
- Enforce Chapter 17 "On-Site" Parking Requirements
- Civic Center Parking District

The cost estimate to implement these alternatives was in excess of \$2,000,000.

The City Council selected a citizens committee to evaluate the study of the Civic Center area and provide the City Council with recommendations to improve parking. The Civic Center Parking Committee met over a six month period. The Committee provided the City Council with recommendations which included the following:

- Residential permit parking on Bonita, Hillside, Magnolia, and Vista Avenues.
- Diagonal parking on Magnolia Avenue.
- Changing the hours of Permit "A" restrictions for teacher parking from 8:00 AM to 12:00 Noon to 6:00 AM to 9:00 AM. This allows anyone to use parking spaces after 9:00 AM.
- Create a policy which requires the creation of a parking space for each one eliminated in the Civic Center area. In other words, if for any reason in the future a parking space is eliminated another must be created elsewhere in the Civic Center area. This policy insures the number of parking spaces will remain constant in the future.

Residential Areas

A number of neighborhoods throughout the City experience some degree of parking congestion. In addition to congestion resulting from the density of development, there are other factors which aggravate the parking problem. These are location of parking on narrow hill streets and in express bus routes.

The neighborhood in the immediate vicinity of the Civic Center area does have restricted parking. Designated spaces have been identified as "Parking by Resident Permit Only" and are enforced between the hours of 6:00 a.m. to 9:00 a.m. and 5:00 p.m. to 8:00 p.m. St. James Drive also has a 4 hour parking restriction due to the narrow street conditions.

Hilly Areas and Narrow Streets

Parking on both sides of narrow hill streets can cause problems for emergency vehicles as well as localize congestion. While existing regulations ensure adequate access in new development, there are limited options with respect to existing development. Requiring off-street parking where not already provided appears infeasible, except where additional dwelling units or substantial alterations are being proposed. When lots on narrow hill streets are developed, consideration should be given to the provisions of guest parking as well as the normally-required of-street parking spaces. Possibly, any or all of the following criteria should be regarded as well: floor area ratio; use of the building; number of vehicles; and number of people.

Other possible solutions to the problem of narrow streets are to prohibit parking either on both sides of the street or one side of the street, perhaps alternating from side to side. Another is to require sidewalk encroachment on one or both sides of the street, requiring automobiles to park with two wheels up on the parking strip. A third alternative is to widen the streets by eliminating sidewalks and/or condemnation of private property.

Possible solutions for the generally overcrowded neighborhoods are: (1) to require excess vehicles to be parked off the street; and/or (2) to impose a time limit on street parking.

Express Bus Routes

There appear to be localized on-street parking problems related to the presence of bus stops along express bus routes. Due to the topographic features of the City, the establishment of an efficient network of bus routes is not feasible. The result is the concentration of all service on two major routes. This in turn leads residents to drive to a convenient bus stop, if they are not within a reasonable walking distance of a bus stop, resulting in heavy on-street parking near major streets that intersect bus routes. In addition, it is apparent that non-resident commuters are parking in the areas adjacent to the San Francisco and downtown Oakland AC Transit lines, thereby denying local residents the parking spaces near their homes. The specific streets involved are Craig, Hardwick, Highland, Bonita, Hillside, Carmel, El Cerrito, San Carlos, Latham, Jerome and the full length of Oakland Avenue from above Jerome to Highland Avenue.

There are several potential solutions to this problem: (1) timed parking on commute days (Monday through Friday); (2) the issuance of neighborhood permits; or (3) a combination of the two.

The desirability of imposing early morning parking restrictions on curb parking in the vicinity of problem bus stops should be explored. There are two possible adverse effects: first, residents may be inconvenienced by having to park their vehicles off-street during the covered period; second, such restrictions might discourage commuting or move the parking problem to another bus stop area.

Preferential permit parking requires costly enforcement techniques as well as permit-issuing overhead. In addition, it tends to cause inconvenience to residents and their visitors, contractors, and delivery personnel. To partially offset the costs of the program, the abutting residents have to pay for parking permits. Though appealing in theory, it is cumbersome to administer.

**CITY OF PIEDMONT
24 HOUR MACHINE COUNTS**

Prepared for:

City of Piedmont
120 Vista Avenue
Piedmont, California 94611

Prepared by:

Traffic Counts, Inc.
170 East 17th Street, Suite 110
Costa Mesa, California 92627
(714) 646-9663
Contact: Craig Shick, Vice-President

June 7, 1994

TIME	----- EB -----				----- WB -----				----- COMBINED -----			
BEGIN	AM		PM		AM		PM		AM		PM	
12:00	8		82		5		56		13		138	
12:15	1		59		2		54		3		113	
12:30	3		53		3		69		6		122	
12:45	1	13	71	265	1	11	68	247	2	24	139	512
1:00	1		62		1		76		2		138	
1:15	5		75		1		62		6		137	
1:30	0		65		2		58		2		123	
1:45	1	7	62	264	1	5	55	251	2	12	107	505
2:00	0		67		2		61		2		128	
2:15	2		64		1		66		3		130	
2:30	0		63		0		49		0		112	
2:45	1	3	88	282	0	3	51	227	1	6	139	509
3:00	2		73		0		62		2		135	
3:15	2		109		0		60		2		169	
3:30	0		126		0		67		0		193	
3:45	0	4	86	394	2	2	57	246	2	6	143	640
4:00	1		80		1		67		2		147	
4:15	0		85		2		63		2		148	
4:30	0		87		0		50		0		137	
4:45	0	1	110	362	2	5	45	225	2	6	155	587
5:00	2		106		5		66		7		172	
5:15	3		128		5		63		8		191	
5:30	1		124		8		53		9		177	
5:45	4	10	127	485	10	28	58	240	14	38	185	725
6:00	5		125		11		70		16		195	
6:15	1		97		20		70		21		167	
6:30	8		102		18		51		26		153	
6:45	9	23	104	428	34	83	30	221	43	106	134	649
7:00	18		75		16		61		34		136	
7:15	24		85		79		50		103		135	
7:30	33		62		90		49		123		111	
7:45	35	110	60	282	114	299	45	205	149	409	105	487
8:00	59		47		145		33		204		80	
8:15	59		40		105		43		164		83	
8:30	67		39		112		22		179		61	
8:45	105	290	36	162	107	469	32	130	212	759	68	292
9:00	79		33		110		18		189		51	
9:15	50		48		111		30		161		78	
9:30	38		45		81		19		119		64	
9:45	58	225	34	160	81	383	36	103	139	608	70	263
10:00	61		35		74		25		135		60	
10:15	40		28		66		15		96		43	
10:30	52		18		50		21		102		39	
10:45	46	199	18	99	67	257	14	75	113	446	32	174
11:00	53		16		60		7		113		23	
11:15	47		11		67		8		114		19	
11:30	37		16		78		5		115		21	
11:45	65	202	10	53	67	272	6	26	132	474	16	79
TOTALS	1087		3236		1817		2196		2894		5422	
DAY TOTALS		4323				4013				8316		
SPLIT %	37.6		59.7		62.8		40.5					
PEAK HOUR	8:15		5:15		7:45		12:30		8:00		5:15	
VOLUME	310		504		476		275		759		748	
P.H.F.	0.74		0.98		0.82		0.90		0.90		0.96	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

S Street: GRAND AVENUE

FILE: D9406090

W Street: BET FAIRVIEW/WILDWOOD

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- NB -----				----- SB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
12:00	13		108		19		146		32		254	
12:15	8		125		13		156		31		281	
12:30	7		104		13		134		20		238	
12:45	9	37	134	471	5	50	124	560	14	97	258	1031
1:00	5		140		9		135		14		275	
1:15	2		130		7		116		9		246	
1:30	5		150		8		112		13		262	
1:45	3	15	118	538	4	28	142	505	7	43	270	1053
2:00	2		122		9		146		11		268	
2:15	2		117		5		143		7		260	
2:30	2		140		4		127		6		267	
2:45	0	6	150	529	3	21	176	592	3	27	326	1121
3:00	2		143		0		167		2		310	
3:15	4		160		3		150		7		310	
3:30	3		145		1		187		4		332	
3:45	3	12	162	610	1	5	167	671	4	17	329	1281
4:00	0		147		1		182		1		329	
4:15	0		175		1		175		1		350	
4:30	1		150		0		166		1		316	
4:45	3	4	127	599	1	3	242	765	4	7	369	1364
5:00	7		162		5		294		12		456	
5:15	5		176		1		200		6		386	
5:30	9		167		9		234		18		401	
5:45	15	36	172	677	11	26	216	944	26	62	388	1631
6:00	14		194		23		219		37		413	
6:15	21		157		11		195		32		352	
6:30	26		131		21		171		47		302	
6:45	33	94	125	607	28	83	160	745	61	177	285	1352
7:00	53		148		29		152		82		300	
7:15	62		122		46		140		108		262	
7:30	87		125		50		134		137		259	
7:45	121	323	118	513	78	203	104	530	199	526	222	1043
8:00	145		105		88		103		233		208	
8:15	144		93		90		111		234		204	
8:30	143		67		111		95		254		162	
8:45	159	591	62	327	107	396	104	413	266	987	176	750
9:00	160		79		115		74		275		153	
9:15	121		83		93		90		214		173	
9:30	105		68		109		76		214		144	
9:45	121	507	55	285	101	418	78	318	222	925	133	603
10:00	139		57		109		68		248		125	
10:15	97		55		97		64		204		119	
10:30	112		43		103		62		215		105	
10:45	106	454	39	194	94	403	40	234	200	867	79	428
11:00	128		29		97		62		225		91	
11:15	112		20		119		44		231		64	
11:30	113		26		124		36		237		62	
11:45	126	479	17	92	111	451	39	181	237	930	56	273
TOTALS	2558		5442		2087		6458		4665		11930	
DAY TOTALS		8000				8545				16595		
SPLIT %	54.8		45.6		44.7		54.1					
PEAK HOUR	8:15		5:15		11:00		4:45		8:15		5:00	
VOLUME	606		709		451		970		1029		1631	
P.H.F.	0.95		0.91		0.91		0.82		0.94		0.89	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

N-S Street: GRAND AVENUE

FILE: D9406070

E-W Street: BET CAMBRIDGE/OAKLAND

Client : EDAW

DATE: 6/07/94

TIME	----- NB -----				----- SB -----				----- COMBINED -----			
BEGIN	AM		PM		AM		PM		AM		PM	
12:00	13		79		15		107		28		186	
12:15	7		105		17		92		24		197	
12:30	3		73		10		98		13		171	
12:45	7	30	85	342	13	55	107	404	20	85	192	746
1:00	2		90		9		111		11		201	
1:15	2		94		8		82		10		176	
1:30	6		111		6		97		12		208	
1:45	2	12	81	376	6	29	109	399	8	41	190	775
2:00	3		85		8		93		11		178	
2:15	2		96		4		87		6		183	
2:30	1		119		2		91		3		210	
2:45	1	7	109	409	0	14	102	373	1	21	211	782
3:00	0		91		0		115		0		206	
3:15	2		110		1		128		3		238	
3:30	2		125		0		113		2		238	
3:45	0	4	150	476	3	4	127	483	3	8	277	959
4:00	1		135		1		104		2		239	
4:15	0		137		0		121		0		258	
4:30	0		142		3		110		3		252	
4:45	4	5	136	550	3	7	125	460	7	12	261	1010
5:00	7		147		3		137		10		284	
5:15	2		158		2		141		4		299	
5:30	5		129		12		128		17		257	
5:45	13	27	142	576	10	27	132	538	23	54	274	1114
6:00	8		138		20		120		28		258	
6:15	16		136		22		124		38		260	
6:30	26		147		29		117		55		264	
6:45	21	71	122	543	26	97	119	480	47	168	241	1023
7:00	34		117		46		105		80		222	
7:15	30		126		47		109		77		235	
7:30	41		99		54		97		95		196	
7:45	48	153	88	430	92	239	94	405	140	392	182	835
8:00	76		95		101		71		177		166	
8:15	64		83		90		62		154		145	
8:30	112		56		121		45		233		101	
8:45	117	369	42	276	129	441	36	214	246	810	78	490
9:00	95		52		107		40		202		92	
9:15	59		65		74		53		133		118	
9:30	70		58		113		39		183		97	
9:45	67	291	56	231	100	394	44	176	167	685	100	407
10:00	67		46		132		41		199		87	
10:15	82		47		81		30		163		77	
10:30	96		45		95		26		191		71	
10:45	75	320	34	172	93	401	28	125	168	721	62	297
11:00	86		26		88		13		174		39	
11:15	73		21		102		17		175		38	
11:30	99		19		97		16		196		35	
11:45	91	349	11	77	102	389	12	58	203	748	23	135
TOTALS	1638		4458		2097		4115		3745		8573	
DAY TOTALS		6096				6212				12318		
SPLIT %	43.7		52.0		56.0		48.0					
PEAK HOUR	8:15		4:30		8:15		5:00		8:15		5:00	
VOLUME	388		583		447		538		835		1114	
P.H.F.	0.83		0.92		0.87		0.95		0.85		0.93	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

S Street: LINDA AVENUE

FILE: D9406092

W Street: BET GRAND/OAKLAND BRIDGE

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- NB -----				----- SB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
2:00	2		27		6		43		8		70	
2:15	4		31		2		50		6		81	
2:30	2		15		2		28		4		43	
2:45	1	9	34	107	1	11	35	156	2	20	69	263
3:00	1		34		1		34		2		68	
3:15	1		28		1		27		2		55	
3:30	0		27		1		23		1		50	
3:45	0	2	28	117	0	3	34	118	0	5	62	235
4:00	0		29		2		24		2		53	
4:15	1		28		0		29		1		57	
4:30	0		32		3		30		3		62	
4:45	0	1	26	115	1	6	41	124	1	7	67	239
5:00	1		48		0		45		1		93	
5:15	1		51		1		49		2		100	
5:30	0		42		0		57		0		99	
5:45	0	2	36	177	1	2	52	203	1	4	88	380
6:00	0		32		0		39		0		71	
6:15	0		29		0		46		0		75	
6:30	0		22		0		42		0		64	
6:45	0	0	36	119	0	0	43	170	0	0	79	289
7:00	1		33		2		43		3		76	
7:15	2		41		0		45		2		86	
7:30	4		33		3		63		7		96	
7:45	3	10	34	141	4	9	51	202	7	19	85	343
8:00	3		38		3		52		6		90	
8:15	3		31		6		60		9		91	
8:30	2		23		3		45		5		68	
8:45	5	13	21	113	5	17	35	192	10	30	56	305
9:00	12		29		13		33		25		62	
9:15	14		25		8		32		22		57	
9:30	20		20		18		26		38		46	
9:45	23	69	16	90	23	62	23	114	46	131	39	204
10:00	25		14		27		29		52		43	
10:15	36		24		21		30		57		54	
10:30	30		10		30		19		60		29	
10:45	72	163	11	59	30	108	23	101	102	271	34	160
11:00	41		15		32		13		73		28	
11:15	34		12		24		20		58		32	
11:30	21		17		23		17		44		34	
11:45	36	132	8	52	32	111	15	65	68	243	23	117
12:00	37		8		28		13		65		21	
12:15	18		9		19		12		37		21	
12:30	18		6		23		10		41		16	
12:45	24	97	2	25	25	95	6	41	49	192	8	66
1:00	25		3		33		8		58		11	
1:15	28		4		29		8		57		12	
1:30	18		6		26		9		44		15	
1:45	27	98	5	18	33	121	6	31	60	219	11	49
TOTALS	596		1133		545		1517		1141		2650	
DAY TOTALS		1729				2062				3791		
SPLIT %	52.2		42.8		47.8		57.2					
PEAK HOUR	8:15		3:00		11:00		5:30		8:30		3:00	
VOLUME	179		177		121		226		293		380	
P.H.F.	0.62		0.87		0.92		0.90		0.72		0.95	

TIME	----- NB -----				----- SB -----				----- COMBINED -----			
BEGIN	AM		PM		AM		PM		AM		PM	
12:00	8		70		3		55		11		125	
12:15	9		59		1		64		10		123	
12:30	4		47		0		40		4		87	
12:45	3	24	66	242	1	5	59	218	4	29	125	460
1:00	5		72		2		83		7		155	
1:15	0		48		0		66		0		114	
1:30	0		56		0		47		0		103	
1:45	3	8	49	225	0	2	53	249	3	10	102	474
2:00	1		48		1		75		2		123	
2:15	1		52		1		61		2		113	
2:30	0		58		1		49		1		107	
2:45	1	3	67	225	0	3	58	243	1	6	125	468
3:00	0		76		0		67		0		143	
3:15	0		86		1		91		1		177	
3:30	0		93		0		86		0		179	
3:45	1	1	78	333	0	1	82	326	1	2	160	659
4:00	1		57		2		45		3		102	
4:15	1		66		0		36		1		102	
4:30	1		76		0		51		1		127	
4:45	0	3	73	272	1	3	60	192	1	6	133	464
5:00	2		85		0		43		2		128	
5:15	1		87		3		59		4		146	
5:30	4		97		7		70		11		167	
5:45	5	12	80	349	9	19	64	236	14	31	144	585
6:00	8		95		15		62		23		157	
6:15	11		88		22		52		33		140	
6:30	12		73		34		40		46		113	
6:45	15	46	63	319	48	119	33	187	63	165	96	506
7:00	19		75		67		35		86		110	
7:15	32		37		53		29		85		66	
7:30	48		64		89		41		137		105	
7:45	35	134	31	207	105	314	37	142	140	448	68	349
8:00	61		36		128		28		189		64	
8:15	48		27		112		35		160		62	
8:30	59		25		91		24		150		59	
8:45	83	251	32	120	96	427	20	107	179	678	52	237
9:00	72		32		84		17		156		49	
9:15	55		24		65		23		120		47	
9:30	51		16		47		27		98		43	
9:45	58	236	21	93	56	252	22	89	114	488	43	182
10:00	40		13		88		16		128		29	
10:15	32		11		60		13		92		24	
10:30	39		10		44		11		83		21	
10:45	54	165	13	47	37	229	9	49	91	394	22	96
11:00	56		9		32		7		88		16	
11:15	57		12		43		10		100		22	
11:30	46		9		50		8		96		17	
11:45	59	218	7	37	41	166	6	31	100	384	13	68
TOTALS	1101		2469		1540		2069		2641		4548	
DAY TOTALS		3570				3609				7189		
SPLIT %	41.7		54.3		58.3		45.5					
PEAK HOUR	8:30		5:30		7:45		3:00		8:00		3:00	
VOLUME	269		360		436		326		678		659	
P.H.F.	0.81		0.93		0.85		0.90		0.90		0.92	

TE CODE : PIEDMONT
S Street: ST. JAMES DRIVE
W Street: BET PARK/CROYDON
ient : EDAW

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1
FILE: D9406081
DATE: 6/07/94

TIME BEGIN	----- EB -----				----- WB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
2:00	0		14		0		6		0		20	
2:15	2		19		0		7		2		26	
2:30	0		24		0		5		0		29	
2:45	0	2	17	74	1	1	18	36	1	3	35	110
3:00	1		14		0		18		1		32	
3:15	1		15		0		9		1		24	
3:30	2		10		1		2		3		12	
3:45	1	5	11	50	0	1	6	35	1	6	17	85
4:00	0		16		0		9		0		25	
4:15	1		13		0		10		1		23	
4:30	0		22		0		17		0		39	
4:45	1	2	14	65	1	1	8	44	2	3	22	109
5:00	0		12		0		16		0		28	
5:15	0		15		0		11		0		26	
5:30	0		19		0		12		0		31	
5:45	0	0	14	60	0	0	21	60	0	0	35	120
6:00	0		10		0		16		0		26	
6:15	2		18		0		21		2		39	
6:30	0		21		1		24		1		45	
6:45	0	2	15	64	0	1	30	91	0	3	45	155
7:00	4		17		1		26		5		43	
7:15	0		20		0		29		0		49	
7:30	0		15		0		27		0		42	
7:45	1	5	13	65	1	2	21	103	2	7	34	168
8:00	0		22		0		26		0		48	
8:15	1		14		1		23		2		37	
8:30	2		13		1		19		3		32	
8:45	0	3	18	67	5	7	22	90	5	10	40	157
9:00	10		10		7		16		17		26	
9:15	6		16		4		12		10		28	
9:30	9		19		10		13		19		32	
9:45	16	41	12	57	13	34	10	51	29	75	22	108
10:00	27		9		17		15		44		24	
10:15	19		10		16		11		35		21	
10:30	36		9		22		6		58		15	
10:45	23	105	8	36	15	70	5	37	38	175	13	73
11:00	13		11		13		6		26		17	
11:15	26		6		19		6		45		12	
11:30	16		10		10		2		26		12	
11:45	11	66	5	32	12	54	8	22	23	120	13	54
12:00	15		7		8		3		23		10	
12:15	14		5		9		1		23		6	
12:30	11		1		7		2		18		3	
12:45	9	49	3	16	7	31	1	7	16	80	4	23
1:00	15		3		12		3		27		6	
1:15	16		2		10		1		26		3	
1:30	21		3		15		1		36		4	
1:45	12	64	1	9	9	46	0	5	21	110	1	14
TOTALS	344		595		248		581		592		1176	
DAY TOTALS		939				829				1768		
SPLIT %	58.1		50.6		41.9		49.4					
PEAK HOUR	8:00		12:00		8:00		4:45		8:00		4:30	
VOLUME	105		74		70		112		175		182	
P.H.F.	0.73		0.77		0.80		0.93		0.75		0.93	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

FILE: D9406093

N-S Street: MOUNTAIN AVENUE

E-W Street: BET DORMIDERA/SHARON

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- NB -----				----- SB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
12:00	0		9		2		4		2		13	
12:15	1		7		1		7		2		14	
12:30	0		6		0		8		0		14	
12:45	0	1	10	32	0	3	15	34	0	4	25	66
1:00	1		12		1		10		2		22	
1:15	0		8		0		11		0		19	
1:30	0		7		0		10		0		17	
1:45	0	1	10	37	0	1	8	39	0	2	18	76
2:00	0		6		0		3		0		9	
2:15	0		11		0		13		0		24	
2:30	0		12		1		16		0		28	
2:45	0	0	16	45	0	1	12	44	0	0	28	89
3:00	0		19		0		17		0		36	
3:15	0		17		0		15		0		32	
3:30	1		10		0		11		1		21	
3:45	0	1	12	58	0	0	13	56	0	1	25	114
4:00	0		15		0		21		0		36	
4:15	0		18		0		14		0		32	
4:30	0		13		2		16		2		29	
4:45	1	1	11	57	0	2	23	74	1	3	34	131
5:00	0		9		0		18		0		27	
5:15	3		9		0		11		3		20	
5:30	5		7		3		8		8		15	
5:45	6	14	6	31	1	4	7	44	7	18	13	75
6:00	9		10		5		9		14		19	
6:15	12		8		4		6		16		14	
6:30	7		12		5		5		12		17	
6:45	11	39	4	34	6	20	9	29	6	48	13	63
7:00	14		9		7		10		21		19	
7:15	19		5		4		3		23		8	
7:30	16		8		12		6		28		14	
7:45	20	69	5	27	10	33	7	26	30	102	12	53
8:00	11		3		6		6		17		9	
8:15	17		3		7		4		24		7	
8:30	15		5		8		1		23		6	
8:45	10	53	2	13	7	28	1	12	17	81	3	25
9:00	13		2		7		4		20		6	
9:15	9		6		11		3		20		9	
9:30	12		4		9		5		21		9	
9:45	5	39	1	13	7	34	1	13	12	73	2	26
10:00	7		1		4		4		11		5	
10:15	11		2		6		2		10		4	
10:30	6		1		9		0		15		1	
10:45	10	34	0	4	15	34	0	6	25	61	0	10
11:00	5		0		6		1		11		1	
11:15	8		1		8		0		16		1	
11:30	6		1		9		0		15		1	
11:45	4	23	0	2	4	27	0	1	8	50	0	3
TOTALS	275		353		187		378		443		731	
DAY TOTALS		628				565				1174		
SPLIT %	62.1		48.3		42.2		51.7					
PEAK HOUR	7:00		2:30		10:30		4:00		7:00		4:00	
VOLUME	69		64		38		74		102		131	
P.H.F.	0.86		0.84		0.63		0.80		0.85		0.91	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

S Street: MORAGA AVENUE

FILE: D9406073

W Street: BET MAXWELTON/CITY OAKLAND

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- EB -----				----- WB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
12:00	15		99		11		97		26		196	
12:15	8		100		7		98		15		198	
12:30	7		102		4		76		11		178	
12:45	4	34	99	400	4	26	101	372	8	60	200	772
1:00	3		107		2		95		5		202	
1:15	3		108		8		106		11		214	
1:30	3		79		4		86		7		165	
1:45	3	12	94	388	0	14	93	380	3	26	187	768
2:00	2		78		1		93		3		171	
2:15	0		95		0		109		0		204	
2:30	3		101		1		74		4		175	
2:45	0	5	141	415	2	4	101	377	2	9	242	792
3:00	0		129		0		112		0		241	
3:15	1		127		0		93		1		220	
3:30	0		167		0		105		0		272	
3:45	1	2	143	566	0	0	133	443	1	2	276	1009
4:00	0		139		0		109		0		248	
4:15	0		141		2		117		2		258	
4:30	1		162		0		109		1		271	
4:45	2	3	164	606	1	3	96	431	3	6	260	1037
5:00	3		160		2		129		5		289	
5:15	2		183		5		109		7		292	
5:30	3		223		4		122		7		345	
5:45	1	9	179	745	10	21	120	480	11	30	299	1225
6:00	13		191		17		133		30		324	
6:15	6		183		25		116		31		299	
6:30	14		143		28		120		42		263	
6:45	19	52	132	649	30	100	90	459	49	152	222	1108
7:00	30		104		60		105		90		209	
7:15	36		112		54		99		90		211	
7:30	45		100		108		87		153		187	
7:45	60	171	81	397	154	376	85	376	214	547	166	773
8:00	71		78		189		67		260		145	
8:15	79		79		183		65		262		144	
8:30	87		75		193		59		280		134	
8:45	118	355	59	291	180	745	61	252	298	1100	120	543
9:00	105		41		174		49		279		90	
9:15	102		56		155		54		257		110	
9:30	95		66		134		56		229		122	
9:45	67	369	58	221	106	569	51	210	173	938	109	431
10:00	90		42		91		55		181		97	
10:15	80		47		90		31		170		78	
10:30	80		31		81		41		161		72	
10:45	83	333	24	144	84	346	17	144	167	679	41	288
11:00	93		20		116		16		209		36	
11:15	83		15		100		16		183		31	
11:30	88		14		87		10		175		24	
11:45	110	374	15	64	90	393	12	54	200	767	27	118
TOTALS	1719		4886		2597		3978		4316		8864	
DAY TOTALS		6605				6575				13180		
SPLIT %	39.8		55.1		60.2		44.9					
PEAK HOUR	8:45		5:15		8:00		5:30		8:15		5:30	
VOLUME	420		776		745		491		1119		1267	
P.H.F.	0.89		0.87		0.97		0.92		0.94		0.92	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

N-S Street: ESTATES DRIVE

FILE: D9406079

E-W Street: BET PARK/SANDRINGHAM

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- NB -----				----- SB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
12:00	2		23		3		30		5		53	
12:15	4		31		2		28		6		59	
12:30	3		17		5		23		8		40	
12:45	0	9	15	86	0	10	27	108	0	19	42	194
1:00	1		19		2		31		3		50	
1:15	0		22		0		29		0		51	
1:30	0		17		0		25		0		42	
1:45	0	1	23	81	2	4	18	103	2	5	41	184
2:00	0		24		0		21		0		45	
2:15	1		21		1		27		2		48	
2:30	0		28		3		33		3		61	
2:45	1	2	19	92	0	4	35	116	1	6	54	208
3:00	0		31		0		26		0		57	
3:15	0		32		0		30		0		62	
3:30	1		26		0		37		1		63	
3:45	0	1	29	118	0	0	24	117	0	1	53	235
4:00	0		18		1		22		1		40	
4:15	2		27		0		20		2		47	
4:30	0		25		0		27		0		52	
4:45	0	2	36	106	2	3	21	90	2	5	57	196
5:00	0		39		5		17		5		56	
5:15	1		46		7		19		8		65	
5:30	0		40		19		26		19		66	
5:45	2	3	51	176	12	43	30	92	14	46	81	268
6:00	1		37		17		23		18		60	
6:15	0		42		11		28		11		70	
6:30	1		30		9		35		10		65	
6:45	5	7	28	137	13	50	26	112	18	57	54	249
7:00	7		23		16		17		23		40	
7:15	9		21		10		19		19		40	
7:30	12		17		15		15		27		32	
7:45	15	43	15	76	24	65	13	64	39	108	28	140
8:00	21		13		38		9		59		22	
8:15	18		12		29		5		47		17	
8:30	36		12		42		8		78		20	
8:45	30	105	14	51	38	147	11	33	68	252	25	84
9:00	27		9		51		10		78		19	
9:15	24		14		34		7		58		21	
9:30	29		10		20		12		49		22	
9:45	17	97	16	49	22	127	9	38	39	224	25	87
10:00	20		13		25		11		45		24	
10:15	20		5		18		3		38		8	
10:30	15		11		21		7		36		18	
10:45	13	68	9	38	19	83	4	25	32	151	13	63
11:00	16		5		26		5		42		10	
11:15	19		7		28		2		47		9	
11:30	22		4		33		2		55		6	
11:45	17	74	4	20	25	112	3	12	42	186	7	32
TOTALS	412		1030		648		910		1060		1940	
DAY TOTALS		1442				1558				3000		
SPLIT %	38.9		53.1		61.1		46.9					
PEAK HOUR	8:30		5:00		8:30		2:45		8:30		5:30	
VOLUME	117		176		165		128		282		277	
P.H.F.	0.81		0.86		0.81		0.86		0.90		0.85	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

S Street: ESTATES DRIVE

FILE: D9406087

W Street: BET SOMERSET/HAMPTON

Client : EDAW

DATE: 6/07/94

TIME BEGIN	NB		SB		COMBINED	
	AM	PM	AM	PM	AM	PM
2:00	1	18	0	24	1	42
2:15	0	26	1	17	1	43
2:30	0	20	1	19	1	39
2:45	1	17	0	21	1	38
3:00	0	13	0	26	0	39
3:15	0	18	0	37	0	55
3:30	0	15	0	30	0	45
3:45	0	12	0	28	0	40
4:00	0	19	0	25	0	44
4:15	0	25	1	31	1	56
4:30	0	34	0	23	0	57
4:45	0	26	0	27	0	53
5:00	0	22	0	21	0	43
5:15	1	29	0	34	1	63
5:30	0	21	0	29	0	50
5:45	0	17	0	18	0	35
6:00	0	20	0	15	0	35
6:15	0	16	1	17	1	33
6:30	2	19	0	24	2	43
6:45	0	24	1	15	1	39
7:00	1	28	4	13	5	41
7:15	0	33	11	21	11	54
7:30	0	31	17	18	17	49
7:45	1	42	15	24	16	66
8:00	0	32	14	20	14	52
8:15	0	49	18	23	18	72
8:30	0	44	12	27	12	71
8:45	2	35	10	19	12	54
9:00	3	29	15	12	18	41
9:15	3	18	8	15	11	33
9:30	7	22	11	11	18	33
9:45	9	11	19	14	28	25
10:00	14	14	28	12	42	26
10:15	11	10	36	8	47	18
10:30	20	9	49	10	69	19
10:45	26	11	40	9	66	20
11:00	19	7	37	5	56	12
11:15	15	10	31	6	46	16
11:30	21	6	26	11	47	17
11:45	23	9	18	7	41	16
12:00	18	12	16	4	34	16
12:15	25	8	13	5	38	13
12:30	19	5	17	3	36	8
12:45	15	6	21	2	36	8
1:00	13	4	23	6	36	10
1:15	10	4	19	1	29	5
1:30	17	3	25	2	42	5
1:45	21	2	29	2	50	4
TOTALS	318	905	587	791	905	1696
DAY TOTALS		1223		1378		2601
SPLIT %	35.1	53.4	64.9	46.6		
PEAK HOUR	9:30	5:45	8:15	1:00	8:15	5:45
VOLUME	87	167	162	121	238	261
P.H.F.	0.87	0.85	0.83	0.82	0.86	0.91

TIME BEGIN	----- NB -----				----- SB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
12:00	8		90		8		56		16		146	
12:15	2		63		5		71		7		134	
12:30	2		76		5		66		7		142	
12:45	2	14	79	308	6	24	65	258	8	38	144	566
1:00	1		69		3		70		4		139	
1:15	1		78		3		64		4		142	
1:30	1		57		0		56		1		113	
1:45	0	3	68	272	2	8	63	253	2	11	131	525
2:00	0		52		2		70		2		122	
2:15	0		59		0		67		0		126	
2:30	0		82		0		54		0		136	
2:45	0	0	93	286	0	2	60	251	0	2	153	537
3:00	1		83		2		82		3		165	
3:15	2		87		0		81		2		168	
3:30	0		121		0		99		0		220	
3:45	0	3	82	373	0	2	98	360	0	5	180	733
4:00	0		103		1		110		1		213	
4:15	0		88		2		86		2		174	
4:30	0		93		0		102		0		195	
4:45	3	3	105	389	2	5	90	388	5	8	195	777
5:00	4		87		2		113		6		200	
5:15	2		102		3		113		5		215	
5:30	2		125		2		94		4		219	
5:45	4	12	110	424	6	13	105	425	10	25	215	849
6:00	11		114		5		123		16		237	
6:15	10		112		13		114		23		226	
6:30	16		80		15		112		31		192	
6:45	17	54	81	387	24	57	86	435	41	111	167	822
7:00	29		68		32		86		61		154	
7:15	42		77		43		71		85		148	
7:30	46		52		64		79		110		131	
7:45	66	183	57	254	72	211	68	304	138	394	125	558
8:00	76		59		110		49		186		108	
8:15	82		45		94		62		176		107	
8:30	88		43		95		46		183		89	
8:45	106	352	35	182	106	405	53	210	212	757	88	392
9:00	91		26		91		38		182		64	
9:15	66		45		106		36		172		81	
9:30	85		41		71		34		156		75	
9:45	54	296	42	154	74	342	38	146	128	638	80	300
10:00	77		29		52		30		129		59	
10:15	57		30		48		20		105		50	
10:30	59		20		47		33		106		53	
10:45	54	247	17	96	51	198	14	97	105	445	31	193
11:00	58		16		73		9		131		25	
11:15	67		6		61		14		128		20	
11:30	61		7		62		12		123		19	
11:45	67	253	6	35	69	265	7	42	136	518	13	77
TOTALS	1420		3160		1532		3169		2952		6329	
DAY TOTALS		4580				4701				9281		
SPLIT %	48.1		49.9		51.9		50.1					
PEAK HOUR	8:15		5:30		8:00		5:45		8:00		5:30	
VOLUME	367		461		405		454		757		897	
P.H.F.	0.87		0.92		0.92		0.92		0.89		0.95	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

-S Street: MAXWELTON ROAD

FILE: D9406086

-W Street: BET HILLTOP/NELLIE

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- NB -----		----- SB -----		----- COMBINED -----			
	AM	PM	AM	PM	AM	PM		
2:00	1	6	0	5	1	11		
2:15	0	2	0	0	0	2		
2:30	0	6	0	1	0	7		
2:45	2	3	2	16	3	4	2	22
3:00	0	1	0	0	0	1		
3:15	0	0	0	1	0	1		
3:30	0	2	0	1	0	3		
3:45	0	0	4	7	0	0	6	11
4:00	0	5	0	4	0	9		
4:15	0	2	1	3	1	5		
4:30	0	4	2	1	2	5		
4:45	0	0	2	13	0	3	2	21
5:00	0	0	0	1	0	1		
5:15	0	3	1	1	1	4		
5:30	0	6	0	2	0	8		
5:45	0	0	4	13	0	1	4	17
6:00	0	1	0	0	0	1		
6:15	0	2	0	3	0	5		
6:30	0	2	0	1	0	3		
6:45	0	0	1	6	1	1	1	10
7:00	0	1	0	5	0	6		
7:15	1	1	0	2	1	3		
7:30	0	3	0	0	0	3		
7:45	0	1	1	6	1	2	1	13
8:00	0	6	2	2	2	8		
8:15	0	2	5	1	5	3		
8:30	0	3	10	0	10	3		
8:45	2	2	6	23	8	25	6	20
9:00	0	2	8	0	8	2		
9:15	2	2	5	2	7	4		
9:30	1	1	3	0	4	1		
9:45	3	6	6	22	9	28	1	8
10:00	4	8	2	7	6	15		
10:15	2	5	7	7	9	12		
10:30	1	0	2	0	3	0		
10:45	4	11	5	16	9	27	2	29
11:00	9	2	1	0	10	2		
11:15	2	2	2	0	4	2		
11:30	3	1	0	0	3	1		
11:45	0	14	0	3	0	17	2	7
12:00	0	1	1	0	1	1		
12:15	1	0	1	0	2	0		
12:30	3	1	0	0	3	1		
12:45	2	6	1	3	3	9	1	3
1:00	1	1	0	0	1	1		
1:15	2	0	1	0	3	0		
1:30	3	1	0	1	3	2		
1:45	0	6	2	3	2	9	1	4
2:00	0	1	2	1	2	1		
TOTALS	49	108	77	57	126	165		
DAY TOTALS		157		134		291		
SPLIT %	38.9	65.5	61.1	34.5				
PEAK HOUR	8:45	12:00	6:15	8:00	6:30	7:30		
VOLUME	18	16	29	14	33	29		
P.H.F.	0.50	0.67	0.73	0.50	0.82	0.48		

SITE CODE : PIEDMONT			24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS						PAGE: 1			
N-S Street: MORAGA AVENUE									FILE: D9406072			
E-W Street: BET HIGHLAND/BONITA												
Client : EDAW									DATE: 6/07/94			

TIME	----- EB -----				----- WB -----				----- COMBINED -----			
BEGIN	AM		PM		AM		PM		AM PM			

12:00	5		86		2		81		7	177		
12:15	2		65		2		93		4	158		
12:30	2		74		0		72		2	146		
12:45	1	10	56	281	0	4	84	330	1	14	140	621
1:00	0		79		1		105		1		184	
1:15	0		98		3		92		3		190	
1:30	3		111		0		66		3		177	
1:45	1	4	83	371	1	5	78	341	2	9	161	712
2:00	0		62		0		70		0		132	
2:15	0		79		0		87		0		166	
2:30	0		60		0		99		0		159	
2:45	0	0	88	289	2	2	116	372	2	2	204	661
3:00	2		96		0		128		2		224	
3:15	0		103		0		108		0		211	
3:30	1		87		0		123		1		210	
3:45	1	4	68	354	1	1	146	505	2	5	214	859
4:00	0		92		2		117		2		209	
4:15	0		98		1		120		1		218	
4:30	0		107		0		136		0		243	
4:45	1	1	113	410	0	3	131	504	1	4	244	914
5:00	0		104		0		155		0		259	
5:15	3		115		3		176		6		291	
5:30	7		108		5		207		12		315	
5:45	9	19	120	447	2	10	210	748	11	29	330	1195
6:00	6		139		8		172		14		311	
6:15	14		125		10		158		24		283	
6:30	21		121		11		125		32		246	
6:45	33	74	111	496	16	45	106	561	49	119	217	1057
7:00	28		75		22		104		50		179	
7:15	49		87		31		62		80		149	
7:30	63		66		52		48		115		114	
7:45	88	228	61	289	46	151	44	258	134	379	105	547
8:00	139		48		66		53		205		101	
8:15	176		50		87		39		263		89	
8:30	157		44		73		46		230		90	
8:45	176	648	37	179	94	320	34	172	270	968	71	351
9:00	159		40		110		29		269		69	
9:15	148		33		107		38		255		71	
9:30	154		28		81		40		235		68	
9:45	132	593	35	136	55	353	31	138	187	946	66	274
10:00	120		38		72		28		192		66	
10:15	78		41		69		22		147		63	
10:30	86		29		88		26		174		55	
10:45	73	357	33	141	74	303	17	93	147	660	50	234
11:00	67		20		96		11		163		31	
11:15	98		13		60		9		158		22	
11:30	92		9		68		13		160		22	
11:45	101	358	11	53	95	319	10	43	196	677	21	96

TOTALS	2296		3446		1516		4065		3812		7521	
DAY TOTALS		5742				5581				11333		
SPLIT %	60.2		45.8		39.8		54.0					

PEAK HOUR	8:15		5:45		8:45		5:15		8:15		5:15	
VOLUME	668		505		392		765		1032		1247	
P.H.F.	0.95		0.91		0.89		0.91		0.96		0.94	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

S Street: HIGHLAND AVENUE

FILE: D9406075

W Street: BET OAKLAND/CRAIG

Client : EDAW

DATE: 6/07/94

TIME BEGIN	NB		SB		COMBINED	
	AM	PM	AM	PM	AM	PM
2:00	3	85	5	46	8	131
2:15	0	71	5	55	5	126
2:30	3	74	6	39	9	113
2:45	5	11	2	18	7	29
3:00	0	81	3	57	3	138
3:15	1	71	3	45	4	116
3:30	2	51	2	79	4	130
3:45	0	3	0	8	0	11
4:00	1	46	1	88	2	134
4:15	2	74	1	61	3	135
4:30	0	86	0	75	0	161
4:45	0	3	0	2	0	5
5:00	1	65	4	52	5	117
5:15	0	55	0	64	0	119
5:30	0	75	0	82	0	157
5:45	0	1	2	6	2	7
6:00	2	66	2	45	4	111
6:15	0	83	0	52	0	135
6:30	0	93	0	79	0	172
6:45	2	4	0	2	2	6
7:00	3	83	3	131	6	214
7:15	3	60	1	108	4	168
7:30	4	96	1	84	5	180
7:45	6	16	5	10	11	26
8:00	11	59	8	129	19	188
8:15	14	75	7	115	21	190
8:30	14	68	9	90	23	158
8:45	19	58	11	35	30	93
9:00	23	56	14	65	37	121
9:15	37	53	22	47	59	100
9:30	68	45	49	73	117	118
9:45	82	210	35	120	117	330
10:00	114	53	69	39	183	92
10:15	127	40	54	33	181	73
10:30	98	38	60	27	158	65
10:45	75	414	74	257	149	671
11:00	92	23	53	26	145	49
11:15	86	36	80	29	166	65
11:30	85	32	58	25	143	57
11:45	61	324	44	235	105	559
12:00	68	22	38	24	106	46
12:15	70	22	55	28	125	50
12:30	62	21	49	19	111	40
12:45	74	274	36	178	110	452
1:00	64	15	38	14	102	29
1:15	81	7	42	9	123	16
1:30	76	9	47	10	123	19
1:45	70	291	51	178	121	469
TOTALS	1609	2605	1049	2746	2658	5351
DAY TOTALS		4214		3795		8009
SPLIT %	60.5	48.7	39.5	51.3		
PEAK HOUR	7:45	4:15	8:30	4:45	8:00	4:45
VOLUME	421	336	267	437	671	753
P.H.F.	0.83	0.90	0.83	0.83	0.92	0.88

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

N-S Street: OAKLAND AVENUE

FILE: D9406071

E-W Street: BET GRAND/HOWARD

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- EB -----		----- WB -----		----- COMBINED -----	
	AM	PM	AM	PM	AM	PM
12:00	12	89	7	56	19	145
12:15	9	70	7	50	16	120
12:30	5	64	4	64	9	128
12:45	2	28	5	23	7	51
1:00	4	71	3	77	7	148
1:15	6	71	3	73	9	144
1:30	2	75	3	58	5	133
1:45	0	12	2	11	2	23
2:00	1	75	1	60	2	135
2:15	2	81	0	60	2	141
2:30	1	86	0	50	1	136
2:45	2	6	0	1	2	7
3:00	3	100	2	60	5	160
3:15	1	113	1	65	2	178
3:30	1	114	0	67	1	181
3:45	0	5	1	4	1	9
4:00	3	85	3	65	6	150
4:15	0	95	4	57	4	152
4:30	1	89	3	92	4	181
4:45	2	6	7	17	9	23
5:00	0	115	7	67	7	182
5:15	1	173	8	68	9	241
5:30	3	166	10	71	13	237
5:45	6	10	15	40	21	50
6:00	6	175	22	55	28	230
6:15	6	125	23	64	29	189
6:30	11	125	47	90	58	215
6:45	17	40	36	128	53	168
7:00	20	110	54	60	74	170
7:15	37	99	76	68	113	167
7:30	35	71	112	56	147	127
7:45	33	125	128	370	161	495
8:00	67	57	152	38	219	95
8:15	53	65	153	34	206	99
8:30	66	44	136	23	202	67
8:45	59	245	143	584	202	829
9:00	73	29	149	30	222	59
9:15	48	46	124	43	172	89
9:30	52	57	97	31	149	88
9:45	48	221	82	452	130	673
10:00	45	47	76	40	121	87
10:15	48	44	60	22	108	66
10:30	49	34	61	23	110	57
10:45	52	194	58	255	110	449
11:00	58	26	64	15	122	41
11:15	62	24	69	11	131	35
11:30	56	25	60	8	116	33
11:45	70	246	56	249	126	495
TOTALS	1138	3840	2134	2453	3272	6293
DAY TOTALS		4978		4587		9565
SPLIT %	34.8	61.0	65.2	39.0		
PEAK HOUR	8:15	5:15	8:00	4:30	8:15	5:15
VOLUME	251	665	584	299	832	920
P.H.F.	0.86	0.95	0.95	0.81	0.94	0.95

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

S Street: HIGHLAND AVENUE

FILE: D9406076

W Street: BET SIERRA/PIEDMONT

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- NB -----		----- SB -----		----- COMBINED -----	
	AM	PM	AM	PM	AM	PM
2:00	1	62	5	110	6	172
2:15	2	73	3	111	5	184
2:30	1	58	2	108	3	166
2:45	2	39	2	109	4	148
3:00	2	33	1	108	3	141
3:15	0	54	3	55	3	109
3:30	0	47	1	39	1	86
3:45	0	40	1	33	1	73
4:00	0	53	1	61	1	114
4:15	1	70	1	69	2	139
4:30	0	66	0	65	0	131
4:45	0	73	0	62	0	135
5:00	0	63	3	57	3	120
5:15	0	109	0	84	0	193
5:30	0	84	0	105	0	189
5:45	0	74	0	76	0	150
6:00	0	83	1	72	1	155
6:15	0	73	0	78	0	151
6:30	2	67	1	82	3	149
6:45	1	70	0	78	1	148
7:00	3	80	1	70	4	150
7:15	3	45	1	89	4	134
7:30	2	73	0	97	2	170
7:45	6	64	1	72	7	136
8:00	4	74	1	98	5	172
8:15	9	66	3	83	12	149
8:30	10	53	3	97	13	150
8:45	14	59	4	60	18	119
9:00	22	62	9	65	31	127
9:15	37	73	11	43	48	116
9:30	49	69	24	57	73	126
9:45	67	68	56	35	123	103
10:00	123	42	83	40	206	82
10:15	71	28	66	40	137	68
10:30	80	28	46	38	126	66
10:45	89	25	55	30	144	55
11:00	74	22	51	22	125	44
11:15	69	16	59	47	128	63
11:30	57	17	46	41	103	58
11:45	52	11	37	26	89	37
12:00	64	12	40	33	104	45
12:15	48	13	43	27	91	40
12:30	42	12	68	18	110	30
12:45	59	14	74	17	133	31
1:00	46	8	104	14	150	22
1:15	45	5	102	9	147	14
1:30	41	4	96	12	137	16
1:45	50	3	84	5	134	8
TOTALS	1248	2337	1193	2847	2441	5184
DAY TOTALS	3585	4040	7625			
SPLIT %	51.1	45.1	48.9	54.9		
PEAK HOUR	8:00	3:15	11:00	12:00	8:00	3:15
VOLUME	363	350	386	438	613	687
P.H.F.	0.74	0.80	0.93	0.99	0.74	0.89

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

FILE: D9406085

N-S Street: BOULEVARD WAY

E-W Street: BET CROFTON/CROFTON

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- EB -----				----- WB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
12:00	1		10		0		13		1		23	
12:15	3		11		0		9		3		20	
12:30	2		13		0		12		2		25	
12:45	0	6	7	41	0	0	10	44	0	6	17	85
1:00	1		10		2		15		3		25	
1:15	1		12		0		11		1		23	
1:30	1		8		0		9		1		17	
1:45	1	4	9	39	0	2	8	43	1	6	18	83
2:00	1		13		0		11		1		24	
2:15	1		15		0		17		1		32	
2:30	0		11		1		10		1		21	
2:45	1	3	11	50	0	1	11	49	1	4	22	99
3:00	0		9		0		15		0		24	
3:15	0		12		0		21		0		33	
3:30	0		14		0		18		0		32	
3:45	1	1	17	52	0	0	11	65	1	1	28	117
4:00	1		23		0		19		1		42	
4:15	0		20		0		14		0		34	
4:30	0		16		0		12		0		28	
4:45	0	1	22	81	0	0	14	59	0	1	36	140
5:00	1		25		0		11		1		36	
5:15	0		19		1		13		1		32	
5:30	0		23		1		10		1		33	
5:45	2	3	30	97	3	5	13	47	5	8	43	144
6:00	1		17		2		17		3		34	
6:15	0		12		6		25		6		37	
6:30	1		16		3		11		4		27	
6:45	2	4	18	63	4	15	19	72	6	19	37	135
7:00	1		15		7		16		8		31	
7:15	5		21		8		14		13		35	
7:30	5		14		12		9		17		23	
7:45	9	20	9	59	18	45	9	48	27	65	18	107
8:00	11		10		23		11		34		21	
8:15	13		13		14		6		27		19	
8:30	10		7		15		5		25		12	
8:45	12	46	9	39	17	69	5	27	29	115	14	66
9:00	13		11		19		6		32		17	
9:15	11		8		13		5		24		13	
9:30	9		4		16		7		25		11	
9:45	12	45	5	28	20	68	11	29	32	113	16	57
10:00	15		6		18		5		33		11	
10:15	10		7		13		2		23		9	
10:30	12		3		17		5		29		8	
10:45	8	45	5	21	14	62	3	15	22	107	8	36
11:00	7		2		11		3		18		5	
11:15	10		1		10		2		20		3	
11:30	12		3		8		3		20		6	
11:45	9	38	2	8	12	41	0	8	21	79	2	16
TOTALS	216		578		308		506		524		1085	
DAY TOTALS		794				814				1609		
SPLIT %	41.2		53.3		58.8		46.6					
PEAK HOUR	9:45		5:00		7:45		6:00		9:45		5:30	
VOLUME	49		97		70		72		117		147	
P.H.F.	0.82		0.81		0.76		0.72		0.89		0.85	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

S Street: SHERIDAN AVENUE

FILE: D9406077

W Street: BET LAKEVIEW/RICHARDSON

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- NB -----				----- SB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
2:00	1		24		1		20		2		44	
2:15	1		22		1		17		2		39	
2:30	0		20		1		20		1		40	
2:45	1	3	22	88	2	5	19	76	3	8	41	164
3:00	1		28		0		28		1		56	
3:15	0		30		0		24		0		54	
3:30	0		24		0		18		0		42	
3:45	0	1	17	99	0	0	21	91	0	1	38	190
4:00	0		25		0		27		0		52	
4:15	1		27		0		32		1		59	
4:30	0		30		0		26		0		56	
4:45	0	1	19	101	0	0	26	111	0	1	45	212
5:00	1		28		1		24		2		52	
5:15	1		31		1		38		2		69	
5:30	0		25		0		41		0		66	
5:45	0	2	30	114	0	2	37	140	0	4	67	254
6:00	0		34		0		47		0		81	
6:15	1		25		1		39		2		64	
6:30	1		29		0		48		1		77	
6:45	0	2	25	113	0	1	36	170	0	3	61	283
7:00	1		27		0		30		1		57	
7:15	1		31		1		41		2		72	
7:30	1		34		0		49		1		83	
7:45	4	7	36	128	1	2	37	157	5	9	73	285
8:00	2		40		1		34		3		74	
8:15	2		21		0		32		2		53	
8:30	7		20		2		42		9		62	
8:45	5	16	27	108	0	3	22	130	5	19	49	238
9:00	8		16		2		23		10		39	
9:15	14		20		5		20		19		40	
9:30	21		17		8		15		29		32	
9:45	29	72	14	67	11	26	7	65	40	98	21	132
10:00	55		15		26		10		81		25	
10:15	31		12		18		16		49		28	
10:30	42		10		16		8		58		18	
10:45	33	161	9	46	25	85	12	46	58	246	21	92
11:00	38		9		14		5		52		14	
11:15	29		5		21		16		50		21	
11:30	24		6		12		11		36		17	
11:45	21	112	11	31	20	67	11	43	41	179	22	74
12:00	23		6		14		6		37		12	
12:15	16		9		15		9		31		18	
12:30	17		5		8		9		25		14	
12:45	22	78	6	26	11	48	9	33	33	126	15	59
1:00	25		1		20		8		45		9	
1:15	14		5		17		4		31		9	
1:30	21		2		11		5		32		7	
1:45	18	78	3	11	22	70	2	19	40	148	5	30
TOTALS	533		932		309		1081		842		2013	
DAY TOTALS		1465				1390				2855		
SPLIT %	63.3		46.3		36.7		53.7					
PEAK HOUR	8:00		5:15		8:00		3:45		8:00		5:15	
VOLUME	161		141		85		171		246		302	
P.H.F.	0.73		0.88		0.82		0.89		0.76		0.91	

TIME BEGIN	----- NB -----				----- SB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
12:00	1		13		2		7		3		20	
12:15	2		15		0		19		2		34	
12:30	1		12		1		14		2		26	
12:45	0	4	8	48	0	3	16	56	0	7	24	104
1:00	2		14		1		21		3		35	
1:15	0		18		0		18		0		36	
1:30	1		10		1		11		2		21	
1:45	0	3	18	60	1	3	18	68	1	6	36	128
2:00	0		15		0		11		0		26	
2:15	0		30		0		22		0		52	
2:30	0		19		0		25		0		44	
2:45	1	1	20	84	0	0	25	83	1	1	45	167
3:00	1		16		1		22		2		38	
3:15	0		19		0		17		0		36	
3:30	0		21		1		14		1		35	
3:45	0	1	28	84	0	2	16	69	0	3	44	153
4:00	0		35		0		26		0		61	
4:15	0		22		0		24		0		46	
4:30	1		23		0		16		1		39	
4:45	0	1	23	103	0	0	19	85	0	1	42	188
5:00	0		22		2		21		2		43	
5:15	0		22		1		32		1		54	
5:30	0		22		1		32		1		54	
5:45	2	2	33	99	1	5	28	113	3	7	61	212
6:00	2		28		3		31		5		59	
6:15	1		26		2		31		3		57	
6:30	1		16		2		18		3		34	
6:45	4	8	16	86	3	10	16	96	7	18	32	182
7:00	7		17		3		12		10		29	
7:15	8		12		7		16		15		28	
7:30	18		12		8		18		26		30	
7:45	12	45	14	55	9	27	16	62	21	72	30	117
8:00	14		5		13		15		27		20	
8:15	23		5		18		13		41		18	
8:30	23		5		27		18		50		23	
8:45	25	85	6	21	13	71	9	55	38	156	15	76
9:00	19		13		18		13		37		26	
9:15	17		6		18		9		35		15	
9:30	15		8		12		7		27		15	
9:45	24	75	4	31	14	62	6	35	38	137	10	66
10:00	24		4		15		4		39		8	
10:15	14		7		10		8		24		15	
10:30	13		8		8		7		21		15	
10:45	13	64	4	23	25	58	3	22	38	122	7	45
11:00	16		0		19		5		35		5	
11:15	13		0		17		5		30		5	
11:30	20		0		15		4		35		4	
11:45	16	65	2	2	17	68	1	15	33	133	3	17
TOTALS	354		696		309		759		663		1455	
DAY TOTALS		1050				1068				2118		
SPLIT %	53.4		47.8		46.6		52.2					
PEAK HOUR	8:15		5:30		8:15		5:15		8:15		5:30	
VOLUME	90		109		76		123		166		231	
P.H.F.	0.90		0.83		0.70		0.96		0.83		0.95	

TE CODE : PIEDMONT
S Street: CROCKER AVENUE
W Street: BET WILDWOOD/HAMPTON
ient : EDAW

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

FILE: D9406089

DATE: 6/07/94

TIME BEGIN	----- NB -----				----- SB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
2:00	1		20		1		37		2		57	
2:15	1		26		0		26		1		52	
2:30	0		24		1		26		1		50	
2:45	1	3	25	95	1	3	32	121	2	6	57	216
3:00	2		37		1		32		3		69	
3:15	0		29		3		34		3		63	
3:30	0		24		2		21		2		45	
3:45	0	2	27	117	1	7	19	106	1	9	46	223
4:00	0		32		0		28		0		60	
4:15	1		40		0		38		1		78	
4:30	0		44		0		50		0		94	
4:45	0	1	33	149	0	0	30	146	0	1	63	295
5:00	1		52		0		33		1		85	
5:15	1		72		1		43		2		115	
5:30	0		48		0		84		0		132	
5:45	0	2	36	208	0	1	56	216	0	3	92	424
6:00	0		50		0		54		0		104	
6:15	1		43		1		47		2		90	
6:30	2		37		3		48		5		85	
6:45	0	3	30	160	0	4	51	200	0	7	81	360
7:00	1		41		1		50		2		91	
7:15	1		36		0		46		1		82	
7:30	1		45		1		57		2		102	
7:45	0	3	37	159	3	5	60	213	3	8	97	372
8:00	2		48		1		58		3		106	
8:15	4		36		2		54		6		90	
8:30	6		37		2		36		8		73	
8:45	4	16	30	151	5	10	38	186	9	26	68	337
9:00	9		32		2		34		11		66	
9:15	7		32		14		31		21		63	
9:30	19		36		7		40		26		76	
9:45	43	78	38	138	7	30	14	119	50	108	52	257
10:00	97		20		36		18		133		38	
10:15	42		18		31		31		73		49	
10:30	78		22		37		13		115		35	
10:45	61	278	15	75	46	150	17	79	107	428	32	154
11:00	43		11		29		15		72		26	
11:15	44		8		26		31		70		39	
11:30	32		8		18		22		50		30	
11:45	46	165	6	33	24	97	26	94	70	262	32	127
12:00	31		15		28		16		59		31	
12:15	18		8		27		10		45		18	
12:30	24		7		18		11		42		18	
12:45	36	109	7	37	24	97	11	48	60	206	18	85
1:00	30		2		17		5		47		7	
1:15	14		5		22		6		36		11	
1:30	29		4		29		4		58		8	
1:45	24	97	3	14	26	94	2	17	50	191	5	31
TOTALS	757		1336		498		1545		1255		2881	
DAY TOTALS		2093				2043				4136		
PLIT %	60.3		46.4		39.7		53.6					
PEAK HOUR	8:00		3:00		8:00		3:30		8:00		3:15	
VOLUME	278		208		150		241		428		443	
H.F.	0.72		0.72		0.82		0.72		0.80		0.84	

SITE CODE : PIEDMONT				24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS				PAGE: 1				
N-S Street: HAMPTON ROAD								FILE: D9406088				
E-W Street: BET INDIAN/ST. JAMES												
Client : EDAW								DATE: 6/07/94				

TIME	----- EB -----				----- WB -----				----- COMBINED -----			
BEGIN	AM		PM		AM		PM		AM		PM	

12:00	2		21		0		20		2		41	
12:15	0		31		0		30		0		61	
12:30	0		22		0		18		0		40	
12:45	0	2	26	100	0	0	28	96	0	2	54	196
1:00	1		34		2		29		3		63	
1:15	1		30		0		19		1		49	
1:30	1		24		0		24		1		48	
1:45	0	3	25	113	0	2	32	104	0	5	57	217
2:00	0		38		0		23		0		61	
2:15	0		36		0		39		0		75	
2:30	0		44		0		25		0		69	
2:45	1	1	37	155	1	1	31	118	2	2	68	273
3:00	1		25		1		41		2		66	
3:15	1		41		1		48		2		89	
3:30	0		68		0		35		0		103	
3:45	0	2	46	180	0	2	26	150	0	4	72	330
4:00	0		39		0		37		0		76	
4:15	3		41		2		31		5		72	
4:30	0		45		0		35		0		80	
4:45	0	3	37	162	1	3	27	130	1	6	64	292
5:00	1		47		1		37		2		84	
5:15	1		57		1		34		2		91	
5:30	1		45		2		31		3		76	
5:45	3	6	52	201	1	5	31	133	4	11	83	334
6:00	0		51		2		34		2		85	
6:15	4		47		4		28		8		75	
6:30	4		42		4		27		8		69	
6:45	5	13	35	175	2	12	29	118	7	25	64	293
7:00	5		34		5		21		10		55	
7:15	12		27		14		28		26		55	
7:30	9		29		25		33		34		62	
7:45	13	39	24	114	36	80	34	116	49	119	58	230
8:00	38		16		75		23		113		39	
8:15	23		28		29		15		52		43	
8:30	42		13		66		15		108		28	
8:45	36	139	11	68	46	216	11	64	82	355	22	132
9:00	18		16		32		9		50		25	
9:15	22		19		20		12		42		31	
9:30	20		21		33		10		53		31	
9:45	28	88	13	69	33	118	7	38	61	206	20	107
10:00	27		10		26		10		53		20	
10:15	29		11		23		10		52		21	
10:30	21		8		17		5		38		13	
10:45	27	104	9	38	29	95	6	31	56	199	15	69
11:00	19		4		23		2		42		6	
11:15	32		2		17		8		49		10	
11:30	19		5		30		3		49		8	
11:45	25	95	0	11	14	84	3	16	39	179	3	27

TOTALS	495		1386		618		1114		1113		2500	
DAY TOTALS		1881				1732				3613		
SPLIT %	44.5		55.4		55.5		44.6					

PEAK HOUR	8:00		5:15		8:00		2:45		8:00		3:15	
VOLUME	139		205		216		155		355		340	
P.H.F.	0.83		0.90		0.72		0.81		0.79		0.83	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

S Street: CROCKER AVENUE

FILE: D9406078

W Street: BET LA SALLE/ASHMOUNT

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- NB -----				----- SB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
12:00	5		16		0		21		5		37	
12:15	2		10		0		19		2		29	
12:30	2		19		1		19		3		38	
12:45	1	10	10	55	0	1	19	78	1	11	29	133
1:00	0		23		0		20		0		43	
1:15	0		29		1		26		1		55	
1:30	1		17		2		12		3		29	
1:45	0	1	29	98	0	3	19	77	0	4	48	175
2:00	0		12		0		16		0		28	
2:15	0		15		0		19		0		34	
2:30	0		28		0		16		0		44	
2:45	0	0	25	80	0	0	13	64	0	0	38	144
3:00	1		27		0		23		1		50	
3:15	0		25		0		25		0		50	
3:30	0		31		0		18		0		49	
3:45	0	1	26	109	0	0	22	88	0	1	48	197
4:00	0		20		0		33		0		53	
4:15	2		30		2		16		4		46	
4:30	1		27		2		21		3		48	
4:45	0	3	34	111	0	4	33	103	0	7	67	214
5:00	1		25		0		22		1		47	
5:15	0		39		4		21		4		60	
5:30	2		31		3		24		5		55	
5:45	1	4	25	120	1	8	15	82	2	12	40	202
6:00	1		43		3		27		4		70	
6:15	1		36		2		28		3		64	
6:30	2		23		4		14		6		37	
6:45	3	7	27	129	8	17	21	90	11	24	48	219
7:00	4		29		8		18		12		47	
7:15	8		24		9		19		17		43	
7:30	13		16		11		19		24		35	
7:45	15	40	15	84	15	43	17	73	30	83	32	157
8:00	21		17		26		10		47		27	
8:15	28		13		30		14		58		27	
8:30	40		11		30		14		70		25	
8:45	27	116	8	49	28	114	6	44	55	230	14	93
9:00	22		8		35		6		57		14	
9:15	20		12		23		11		43		23	
9:30	25		7		25		6		50		13	
9:45	16	83	5	32	22	105	7	30	38	188	12	62
10:00	22		7		20		1		42		8	
10:15	18		10		18		6		36		16	
10:30	13		13		11		9		24		22	
10:45	22	75	5	35	9	58	3	19	31	133	8	54
11:00	17		7		19		3		36		10	
11:15	20		2		13		3		33		5	
11:30	10		2		11		2		21		4	
11:45	10	57	5	16	19	62	3	11	29	119	8	27
TOTALS	397		918		415		759		812		1677	
DAY TOTALS		1315				1174				2489		
SPLIT %	48.9		54.7		51.1		45.3					
PEAK HOUR	8:15		5:15		8:15		4:00		8:15		4:45	
VOLUME	117		138		123		103		240		229	
P.H.F.	0.73		0.80		0.88		0.78		0.86		0.85	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

N-S Street: PLEASANT VALLEY AVENUE

FILE: D9406069

E-W Street: BET MORAGA/CITY OAKLAND

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- NB -----				----- SB -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
12:00	6		101		19		95		25		196	
12:15	8		102		20		114		28		216	
12:30	4		91		10		96		14		187	
12:45	9	27	88	382	8	57	100	405	17	84	188	787
1:00	3		112		9		107		12		219	
1:15	3		99		8		102		11		201	
1:30	5		105		7		103		12		208	
1:45	2	13	86	402	2	26	119	431	4	39	205	833
2:00	2		93		6		133		8		226	
2:15	1		100		4		104		5		204	
2:30	0		95		1		87		1		182	
2:45	0	3	145	433	1	12	95	419	1	15	240	852
3:00	0		90		0		124		0		214	
3:15	0		120		0		125		0		245	
3:30	4		117		0		127		4		244	
3:45	0	4	132	459	1	1	145	521	1	5	277	980
4:00	3		96		2		130		5		226	
4:15	0		114		1		139		1		253	
4:30	1		111		0		124		1		235	
4:45	3	7	91	412	1	4	150	543	4	11	241	955
5:00	9		140		2		156		11		296	
5:15	4		130		2		172		6		302	
5:30	7		156		6		198		13		354	
5:45	11	31	126	552	6	16	211	737	17	47	337	1289
6:00	22		124		9		169		31		293	
6:15	12		136		10		168		22		304	
6:30	26		127		10		164		36		291	
6:45	31	91	102	489	17	46	160	661	48	137	262	1150
7:00	55		112		29		136		84		248	
7:15	48		87		21		127		69		214	
7:30	69		90		25		116		94		206	
7:45	88	260	79	368	47	122	94	473	135	382	173	841
8:00	114		89		62		88		176		177	
8:15	136		82		54		99		190		181	
8:30	127		67		79		78		206		145	
8:45	130	507	46	284	64	259	83	348	194	766	129	632
9:00	133		56		83		80		216		136	
9:15	88		55		62		85		150		140	
9:30	108		55		90		80		198		135	
9:45	73	402	52	218	78	313	78	323	151	715	130	541
10:00	84		44		84		70		168		114	
10:15	87		50		64		68		151		118	
10:30	84		41		76		65		160		106	
10:45	86	341	37	172	90	314	42	245	176	655	79	417
11:00	113		24		67		55		180		79	
11:15	85		12		85		40		170		52	
11:30	97		23		79		31		176		54	
11:45	88	383	12	71	97	328	36	162	185	711	48	233
TOTALS	2069		4242		1498		5268		3567		9510	
DAY TOTALS		6311				6766				13077		
SPLIT %	58.0		44.6		42.0		55.4					
PEAK HOUR	8:15		5:00		11:00		5:15		8:15		5:00	
VOLUME	526		552		328		750		806		1289	
P.H.F.	0.97		0.88		0.85		0.89		0.93		0.91	

SITE CODE : PIEDMONT

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1

S Street: MAGNOLIA AVENUE

FILE: D9406083

W Street: BET HILLSIDE/BONITA

Client : EDAW

DATE: 6/07/94

TIME BEGIN	----- TOTAL -----				----- TOTAL -----				----- COMBINED -----			
	AM		PM		AM		PM		AM		PM	
12:00	2		47		0		0		2		47	
12:15	1		26		0		0		1		26	
12:30	0		17		0		0		0		17	
12:45	0	3	48	138	0	0	0	0	0	3	48	138
1:00	1		42		0		0		1		42	
1:15	0		38		0		0		0		38	
1:30	2		26		0		0		2		26	
1:45	1	4	38	144	0	0	0	0	1	4	38	144
2:00	0		27		0		0		0		27	
2:15	0		34		0		0		0		34	
2:30	0		47		0		0		0		47	
2:45	0	0	30	138	0	0	0	0	0	0	30	138
3:00	0		34		0		0		0		34	
3:15	0		97		0		0		0		97	
3:30	0		75		0		0		0		75	
3:45	2	2	63	269	0	0	0	0	2	2	63	269
4:00	0		126		0		0		0		126	
4:15	0		52		0		0		0		52	
4:30	0		49		0		0		0		49	
4:45	1	1	29	256	0	0	0	0	1	1	29	256
5:00	1		45		0		0		1		45	
5:15	0		47		0		0		0		47	
5:30	3		28		0		0		3		28	
5:45	1	5	31	151	0	0	0	0	1	5	31	151
6:00	3		79		0		0		3		79	
6:15	7		73		0		0		7		73	
6:30	6		25		0		0		6		25	
6:45	3	19	27	204	0	0	0	0	3	19	27	204
7:00	5		47		0		0		5		47	
7:15	6		52		0		0		6		52	
7:30	16		49		0		0		16		49	
7:45	59	86	25	173	0	0	0	0	59	86	25	173
8:00	170		14		0		0		170		14	
8:15	55		13		0		0		55		13	
8:30	20		11		0		0		20		11	
8:45	25	270	7	45	0	0	0	0	25	270	7	45
9:00	43		8		0		0		43		8	
9:15	28		17		0		0		28		17	
9:30	36		9		0		0		36		9	
9:45	27	134	10	44	0	0	0	0	27	134	10	44
10:00	29		19		0		0		29		19	
10:15	22		4		0		0		22		4	
10:30	31		2		0		0		31		2	
10:45	28	110	3	28	0	0	0	0	28	110	3	28
11:00	41		0		0		0		41		0	
11:15	38		3		0		0		38		3	
11:30	21		1		0		0		21		1	
11:45	32	132	1	5	0	0	0	0	32	132	1	5
TOTALS	766		1595		0		0		766		1595	
DAY TOTALS		2361			*					2361		
SPLIT %	%100.0		%100.0		0		0					
PEAK HOUR	7:45		3:15		*		*		7:45		3:15	
VOLUME	304		361		*		*		304		361	
H.F.	0.45		0.72		*		*		0.45		0.72	

SITE CODE : PIEDMONT
 N-S Street: TRESTLE GLEN ROAD
 E-W Street: BET PARK/CAVENAGH
 Client : EDAW

24 HOUR MACHINE COUNTS-BY TRAFFIC COUNTS

PAGE: 1
 FILE: D9406080
 DATE: 6/07/94

TIME	----- EB -----				----- WB -----				----- COMBINED -----			
BEGIN	AM		PM		AM		PM		AM		PM	
12:00	0		5		1		10		1		15	
12:15	4		15		2		18		6		33	
12:30	1		10		1		6		2		16	
12:45	0	5	9	39	1	5	6	40	1	10	15	79
1:00	0		4		0		10		0		14	
1:15	1		6		2		7		3		13	
1:30	1		7		0		10		1		17	
1:45	0	2	2	19	1	3	9	36	1	5	11	55
2:00	2		3		0		10		2		13	
2:15	0		6		0		5		0		11	
2:30	0		16		0		8		0		24	
2:45	0	2	13	38	0	0	6	29	0	2	19	67
3:00	0		19		1		12		1		31	
3:15	0		18		0		14		0		32	
3:30	0		11		0		10		0		21	
3:45	0	0	7	55	0	1	20	56	0	1	27	111
4:00	0		10		0		15		0		25	
4:15	0		20		0		13		0		33	
4:30	0		16		0		11		0		27	
4:45	0	0	9	55	0	0	12	51	0	0	21	106
5:00	3		3		0		18		3		21	
5:15	0		22		0		8		0		30	
5:30	0		16		0		17		0		33	
5:45	0	3	12	53	0	0	12	55	0	3	24	108
6:00	1		9		0		15		1		24	
6:15	1		13		2		12		3		25	
6:30	0		16		1		18		1		34	
6:45	1	3	10	48	1	4	11	56	2	7	21	104
7:00	3		9		2		16		5		25	
7:15	8		15		1		5		9		20	
7:30	8		6		4		14		12		20	
7:45	8	27	12	42	5	12	2	37	13	39	14	79
8:00	18		9		6		11		24		20	
8:15	23		11		14		3		37		14	
8:30	13		10		11		14		24		24	
8:45	13	67	4	34	18	49	9	37	31	116	13	71
9:00	13		10		16		5		29		15	
9:15	14		2		6		5		20		7	
9:30	9		5		12		9		21		14	
9:45	8	44	2	19	7	41	7	26	15	85	9	45
10:00	8		3		5		3		13		6	
10:15	10		3		7		9		17		12	
10:30	8		2		5		5		13		7	
10:45	8	34	3	11	7	24	4	21	15	58	7	32
11:00	4		3		3		0		7		3	
11:15	12		3		7		0		19		3	
11:30	8		0		16		2		24		2	
11:45	5	29	1	7	4	30	1	3	9	59	2	10
TOTALS	216		420		169		447		385		867	
DAY TOTALS		636				616				1252		
SPLIT %	56.1		48.4		43.9		51.6					
PEAK HOUR	8:00		2:30		8:15		3:15		8:15		3:45	
VOLUME	67		66		59		59		121		112	
P.H.F.	0.73		0.87		0.82		0.74		0.82		0.85	

SECTION G

HOUSING BACKGROUND INFORMATION
BOUND UNDER SEPARATE COVER

SECTION H

OPEN SPACE, RECREATION AND CONSERVATION BACKGROUND INFORMATION

SECTION H

OPEN SPACE, RECREATION AND CONSERVATION BACKGROUND INFORMATION

OPEN SPACE, RECREATION AND CONSERVATION BACKGROUND INFORMATION

INTRODUCTION

The following is the stated philosophy of the Piedmont Recreation Commission as adopted on November 7, 1973 and approved by the City Council on November 19, 1973:

The Piedmont Recreation Commission believes that the Recreation Department should involve as many Piedmont citizens as possible in a broad variety of recreational activities. The major emphasis of the Department should be placed on participation, learning experiences, sportsmanship, cooperation and enjoyment.

Recreation has four major ingredients: people, activities, facilities and attitudes. The principal responsibility of the Recreation Department should be to provide people with activities and facilities which can open the door to self-discovery and to the joy and satisfaction of sharing mutual interests and experiences with others.

The Recreation Department should attempt to coordinate its activities with the churches, schools and other agencies of the community that provide recreational activities so that their resources, personnel specialties, facilities and combined services can provide a wide variety of activities to meet the leisure time needs of all Piedmont residents on the broadest possible level. Adequate budget, maximum use of community facilities, qualified leadership, publicity and constant evaluation are all necessary to achieve a quality, year round program.

The Recreation Department continues to try to meet the legitimate needs of the community. It does this by evaluating the past years' activities, determining trends for fads, and listening to the request of the members of the community. For example, in the 1970's there was little demand for before and after school child care. Requests from the community began to come in and an evaluation determined that there would be use of that service if it was offered. In 1981, a before and after school day care program began with 230 youngsters the first year. In 1992, the Schoolmates Program had more than 400 participants. Other programs are begun or terminated through this intra-department evaluation process. As a further source of information concerning community needs, the Recreation Department conducts periodic surveys.

OPEN SPACE

Open space is land area either left in its natural state or developed in a manner that preserves its original character and resources. It is important for urban communities to leave spaces open for the visual, psychological, and health benefits to their citizens, whether for active or passive enjoyment. Within the city limits of Piedmont, there are approximately 91.41 acres of open space under public and private ownership. Exhibit H-1, Land Use Plan, provides the location of open space. Table H-A provides a summary of open space within Piedmont.

LAND USE MAP

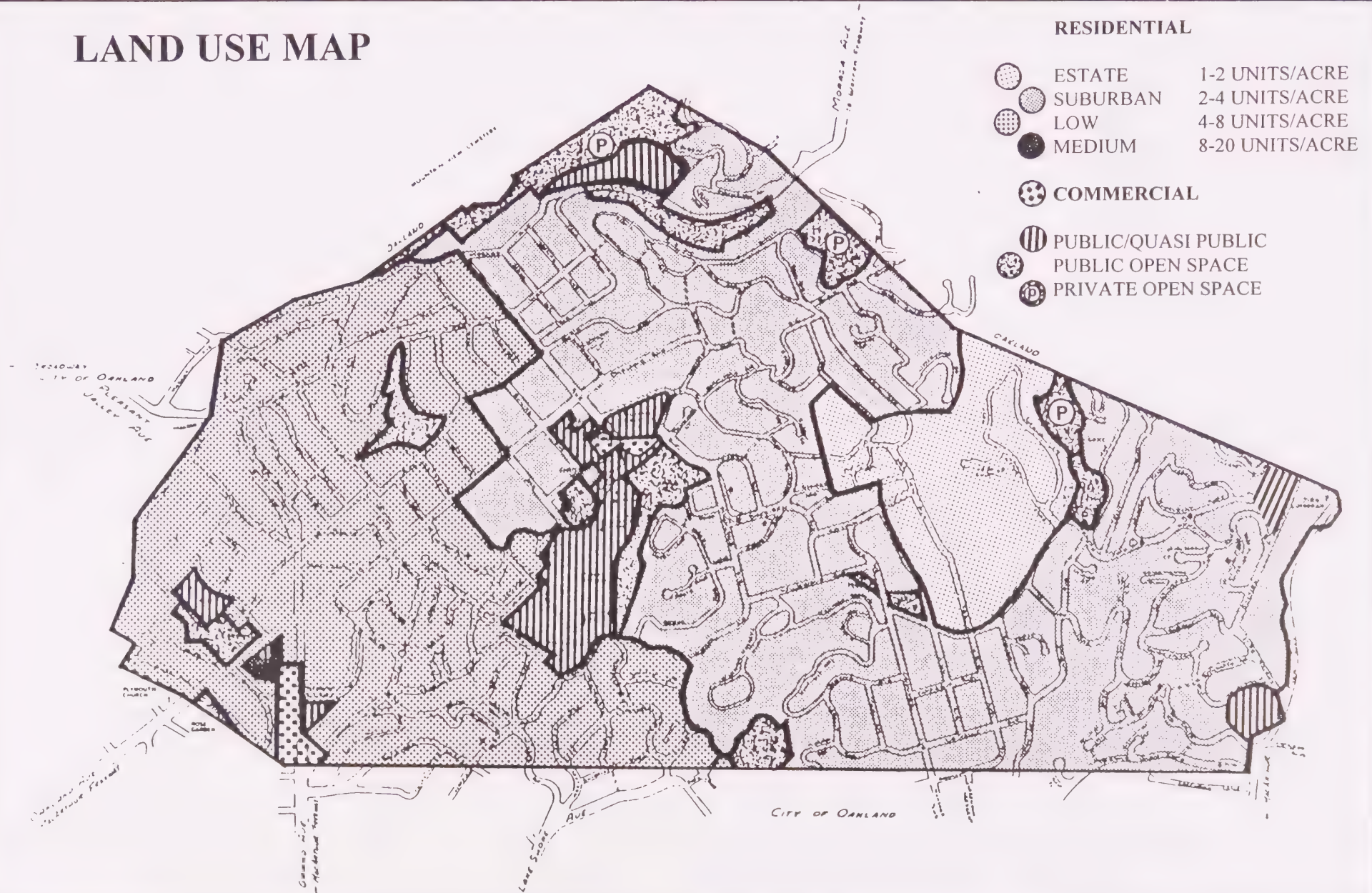


TABLE H-A
CITY OF PIEDMONT
OPEN SPACE

OPEN SPACES	ACREAGE
Acreage of Parks and Playgrounds	
Recreation Center	2.0
Piedmont Park	15.3
Dracena Park	7.8
Linda Park	1.3
Piedmont Sports Field	2.4
Crocker Park	.99
Hall Fenway	.26
Blair Park (Undeveloped)	8.2
Coaches' Playfield at Moraga Canyon	3.8
Linda Playfield	2.2
Subtotal of City Operated	44.25
Havens School Playground	1.5
Wildwood School Playground	.7
Beach School Playground	2.0
High School Sports Field	4.3
Subtotal of School Operated	8.5
Davie Tennis Stadium	5.0
Rose Garden (portion)	.84
Subtotal of Oakland Operated	5.84
Subtotal	58.59

TABLE H-A (CONT'D)
CITY OF PIEDMONT
OPEN SPACE

OPEN SPACES	ACREAGE
Acreage of Smaller Open Space Areas	
Grand Avenue	.70
San Carlos Avenue	.45
Fairview Avenue	.67
St. James Drive (5 Islands)	.80
13 small open space areas in medians	1.44
Subtotal	4.06
Acreage of Other Public and Private Open Space	
City Corporation Yard	7.76
EBMUD Piedmont Reservoir	8.26
Mountain View Cemetery	6.31
Tyson Lake	4.57
Subtotal	26.90
TOTAL	89.55

Source: City of Piedmont, 1994.

PARKS

Types of Parks

There are various kinds of parks which are utilized by Piedmont residents, all serving different functions and needs. They include regional, community, and neighborhood parks, mini-parks, and park-like areas which cater to particular activities.

Regional Parks

As has been the case for a number of years, the City's residents have generally looked outside the City for recreational and amusement facilities usually found in regional parks. Piedmont is located near parkland in Oakland, including Lake Merritt, the Oakland Rose Garden, Montclair Park, and Knowland Park Zoo. In addition to parks in Oakland, the East Bay Regional Park District also includes Lake Temescal Regional Park, Joaquin Miller Park, Redwood Regional Park, and Chabot Regional Park which are only a short distance away and contain hiking trails, picnic areas, and other facilities.

Community Parks

Piedmont Park serves as a community park. Piedmont Park has many features unusual for one park: a community hall which is in continuous use; a play area for children; an Italianate entry, the Excedra, which is on axis with Highland Avenue; a stream; a developed system of trails within a forested glen; a sunny lawn area; a Japanese tea house; and parking. The park is adjacent to major town facilities such as City Hall, Recreation Center, school facilities, and retail and office space. The park and its surroundings embody the historical center of Piedmont and serves as a reference point for City residents.

Neighborhood Park and Mini-Parks

Within the 1.8 square miles comprising the City, there are approximately 58.59 acres of neighborhood parks and playgrounds. A list of the City's parks and playgrounds and the acreage of each appears in Table H-A. The City currently has six developed parks including Dracena Park, Piedmont Sports Field, Linda Park, Crocker Park, Linda Playfield, and Coaches' Playfield at Moraga Canyon. Blair Park in Moraga Canyon is undeveloped. In some instances, these parks are adjacent to school playgrounds and they function as a unit.

Other Parks and Smaller Open Space Areas

These areas include special recreational facilities such as the Davie Tennis Stadium, the Rose Garden (both owned by Oakland), and other smaller open space areas such as the landscaped circles and strips which are found throughout the City.

City Parks and Facilities

Piedmont Park

This park has some of the attributes of a community park, but not the size. Out of a total of about 15.3 acres, there are about 4 acres of sloping grass areas (unsuitable for team sports), two tennis courts, and a play structure. The remainder is mostly developed natural area. There is also a Tea House and Community Hall rental facility that receives heavy usage.

Dracena Park

This park has three grass areas, one quite sloped and the other two interspersed with walkways. The lower level grass area has a play structure. The remainder of this 7.8 acre park is divided equally between developed and undeveloped natural area. There is a large quarry bottom in the undeveloped area. The Recreation and Park Commissions have conducted joint hearings on the use of the quarry area. The joint Recreation and Park Commission recommended that the quarry area be used for passive recreational activities. The City Council concurred and has directed City staff to further study and explore the development of the quarry for passive use.

Piedmont Sports Field

This 2.4 acre park has a playfield of about one acre developed with a high-quality but small baseball field. The outfield grass is also used for children's football and soccer. The park also has two tennis courts, two tennis practice backboards, a volleyball court, a full-size basketball court, restrooms, and a storage facility.

Recreation Center

This facility contains four lighted tennis courts, basketball courts, a play structure, and a small picnic area. The Piedmont Swim Club operates a swimming pool under a lease agreement. The Recreation Center building itself provides space for administrative offices and indoor activities. The Carriage House is leased to the Dressed Best for Less (DBFL), a school support group.

Crocker Park

This is a landscaped area of approximately .99 of an acre intended primarily for passive recreational activities. The nearby Hall Fenway serves the same function.

Linda Park

This is a linear strip park which serves as a pathway for jogging, walking, and similar activities.

Linda Playfield

This park consists of two play areas, a large grass field, and two tennis courts. There is also a public restroom facility.

Coaches' Playfield at Moraga Canyon

This approximately 3.8 acre sports field has a baseball facility with 70 foot base paths and a 200 foot outfield along with a 120 foot by 180 foot soccer field. The field is utilized for soccer (for youth under 10 years old), baseball (for youth 12 years old and under), girls softball, and flag football.

School Grounds and Facilities

High School

The high school field (Witter Field) has a regulation football field which is also suitable for soccer. The field also has a running track, which is less than the regulation 440 yards, and a baseball field (with an extremely high fence) suitable for high school baseball.

Elementary Schools

Two elementary schools, Havens and Beach, have paved facilities suitable for youth softball. All of the schools have basketball goals, handball courts, play structures, etc.

Other Park Facilities

The City of Oakland operates Davie Tennis Stadium, which is just within Piedmont's City limits. This is a special purpose facility with six tennis courts. Being in a metropolitan area, Piedmont residents have access, with a short drive, to parks in Oakland and parks within the East Bay Regional Park District. Grass playfields are still very much at a premium within this expanded area. Flat land which would be suitable for grass playfields is fully developed and the establishment of significant additional playfield space is unlikely.

EXISTING RECREATION FACILITIES

Table H-B and Table H-C provide additional information on recreational facilities and an inventory of playfields in the City of Piedmont.

EXISTING RECREATION PROGRAMS

The Recreation Department provides a variety of services to the community which consistently achieve high levels of service. The Department program is broken into three major areas. Each area is under direct charge of a full-time professionally trained Recreation Manager. The three areas are:

- Sports programs, tennis monitors, computer systems, bookkeeping, and accounting
- Fee classes, rental facilities, brochure, and facility reservations; and
- Day care, special events, and training.

TABLE H-B
CITY OF PIEDMONT
RECREATION FACILITIES

Havens Playground	Schoolmates classroom.
Recreation Center	Administration offices, center rooms, Carriage House, play structure, tennis courts (4), basketball courts (2), picnic area, and swim club.
Linda Playfield	Clubhouse, play apparatus, tennis courts (2), picnic tables and barbecue, grass soccer field, and restrooms.
Wildwood Playground	Play apparatus, asphalt play area, natural area, basketball court, softball diamond.
Hampton Sports Field	Multi-use turf field, clubhouse, tennis courts (2), tennis walls (2), basketball courts (4), tables, volleyball court.
Piedmont Park	Tennis courts (2), tea house, trails and natural areas, and play structure.
Dracena Park	Upper turf area, dog runs, trails and natural areas, and play structure.
Coaches' Playfield at Moraga Canyon	Soccer field, baseball diamond, restrooms, and parking area.
Linda Park	Pathway, dog run, and lawn area.
Crocker Park	Pathway, botanical gardens, and lawn area.
Halls	Veterans Hall, Community Hall

Source: City of Piedmont, April 1994.

TABLE H-C

CITY OF PIEDMONT

INVENTORY OF PLAYFIELDS

Location	Total Acres	Grass Areas		Paved Areas	Other Areas	
		Play- field	Other		Natural and Dev.	Undeveloped
Parks						
Piedmont	15.3		4.0		11.4	
Dracena	7.8		1.0		3.6	3.2
Hampton Sports Field	2.4	1.0		.06		0.8
Recreation Center	2.0		0.1	0.3	1.6	
Linda Playfield	2.2		1.6		0.6	
Coaches' Playfield At Moraga Canyon	3.8	2.0		0.5		
Schools ¹						
Total Acreage	33.5	3.0	6.7	1.4	18.5	4.0

Source: City of Piedmont, November 1994.

Notes:

- 1 The Piedmont Unified School District owns and operates playgrounds associated with the Elementary and Middle Schools and the High School Sports Field associated with the High School.

Under the overall leadership and charge of the Recreation Director, the Department staff strives to offer high quality, well organized programs and activities which meet the needs and interests of Piedmont citizenry.

The special tours and events are comprised of the special activities that the Department sponsors during the year. These include, among other things, the 4th of July Parade, the Easter egg hunt, canoe trips, etc., for families; trips to Great America or Disneyland or professional ball games for the youth; and tours of the wine country or rafting trips for adults.

The special programs of the Department are the Schoolmates program, P.L.A.Y. program, Teen Center activities, and the Playground program. The Schoolmates is an in-school recreational program providing before and after school supervision for children in kindergarten through fifth grade. This program is provided facilities by the Piedmont Unified School District. The Playground program is an activity program for children in kindergarten through sixth grade. It includes games, music, theater, arts and crafts, and field trips. This program is the only Recreation Department program this is funded by the City General Fund. P.L.A.Y. is a summer jobs employment agency for teenagers. The Teen Center provides dances, picnics, parties, and overnight trips for teenagers.

The fee classes are divided into pre-school classes, children's art classes, children's sports classes, children's music, dance and carpentry, day camps for children, sports camp for children, adult fitness classes, adult calligraphy, and tennis classes for all ages. All fee classes are designed to be self-supporting and the Department has consistently met that design.

NEEDS AND DEFICIENCIES

Development of New Grass Playfields

Criteria for judging the adequacy of playfield facilities may be found in a publication of Purdue University Cooperation Extension Service, "Guidelines for Evaluating Public Parks and Recreation." According to this publication, a city of Piedmont's size (10,000 residents) should have 14 acres of grass playfields. The City has only 6.6 acres at the present time which is a significant deficit of grass playfield areas.

Piedmont has three parks with active sports facilities, all with grass playfields. These are supplemented with school facilities, some of which are owned by the City, including four grass playfields and two paved baseball fields. Only the high school fields are large enough to accommodate adult-scale team sports.

The primary limit on field sports activities sponsored by the Department is the lack of sufficient field space. The City owns two multipurpose sport fields. Piedmont Sports Field and the Coaches' Playfield at Moraga Canyon are not lighted and are not available at night. The surveys and indications from the community lead the Recreation Department to consider this shortage to be long-term in nature, a significant area of concern and one where an action plan TFTF has been implemented.

Rehabilitation of Existing Facilities

Capital improvements to the present facilities are something that should not be postponed. The City has been aggressively reviewing the need to rehabilitate recreational facilities in order to maximize the use of each facility as well as to meet Americans with Disabilities Act (ADA) standards.

City/School Cooperation

An agreement for the use of facilities has been established between the City Recreation Department and the Piedmont Unified School District concerning the use of school fields, playgrounds, or recreational programs to be offered.

PROPOSED RECREATION FACILITIES AND CAPITAL IMPROVEMENTS

Grass Playfields

The following area has potential for the development of a grass playfield.

Dracena Park

The quarry area is suitable for the development of a small playfield facility for youth team sports and casual lawn activities, such as pickup games, frisbee toss, picnic games, etc. Plans for such development were drawn up in the mid-1970s and approved in 1978. A modified “no frills” design was adopted in 1981, deleting paved pathways and a waterfall. Development of the rest of the park was carried out in 1979 consistent with the Master Plan. Development of the quarry grass area was postponed at that time because of lack of financing and in consideration of opposition from nearby residents. In 1984, the Recreation and Park Commissions conducted joint hearings on the use of the quarry area. The joint Recreation and Park Commissions recommended that the quarry area be used for passive recreational activities. The City Council concurred and has directed City staff to further study and explore the development of the quarry area for passive use.

Other Capital Improvements

Development of New Facilities

- Non-grassy play area
- Recreation Center renovation
- Community Library

Rehabilitation of Existing Facilities

- Wildwood Playground Tot Lot
- High School football field (with school district)

Financial Consideration

The Recreation Department budget is supported by fees and income from 70 to 80 percent of the total budget. The general fund subsidizes the remainder. All direct program expenses including debt service is funded through fee revenue.

SECTION I

SAFETY BACKGROUND INFORMATION

SAFETY BACKGROUND INFORMATION

SEISMIC SAFETY

Geologic Setting

The City of Piedmont lies within the San Andreas Fault system as is .25 of a mile west of the Hayward Fault. Although Piedmont lies close to the seismically active Hayward Fault, no active faults run through the City. Exhibit I-1, Major California Earthquake Faults, provides the location of the faults and epicenters in relationship to the City. Table I-A, Earthquake Probabilities by Fault, provides information on the expected magnitude and probability of seismic activity on faults in the San Francisco Bay region.

The terrain throughout the City is generally hilly with gentle slopes at the western edge. The slopes in the central and eastern portions of the City are steeper. Most of Piedmont is set on rock consisting of sandstone and shale of the Franciscan formation. A smaller portion of the City is situated on quaternary alluvium sand deposits. Exhibit I-2, Geologic Formations, shows the extent of the main geologic units and subunits together with mapped faults in the vicinity. The sheared, clay-rich sandstone provides good slope stability and foundation conditions. The western third of the City of Piedmont is an area of relatively moderate relief and is underlain by geologically recent (quaternary) sediments.

Geology Hazards

Seismically induced geologic hazards can be divided into four primary categories. They are: fault displacement; ground shaking; ground failure; and water hazards. The potential for structural hazards relate to the severity of the seismic event. These potential hazards are discussed below.

Fault Displacement

Fault displacement is the sudden rupturing of the ground along the traces of active faults which can occur at the time of an earthquake. Since no active faults run through the City, the possibility of ground rupture is not high.

The Hayward Fault, located approximately .25 of a mile to the east, is known to be active from the evidence of historic records and the recent monitoring of tectonic creep. In the event of an earthquake along this fault, the most likely movement would be lateral. Vertical movement along the Hayward Fault has not been documented to date.



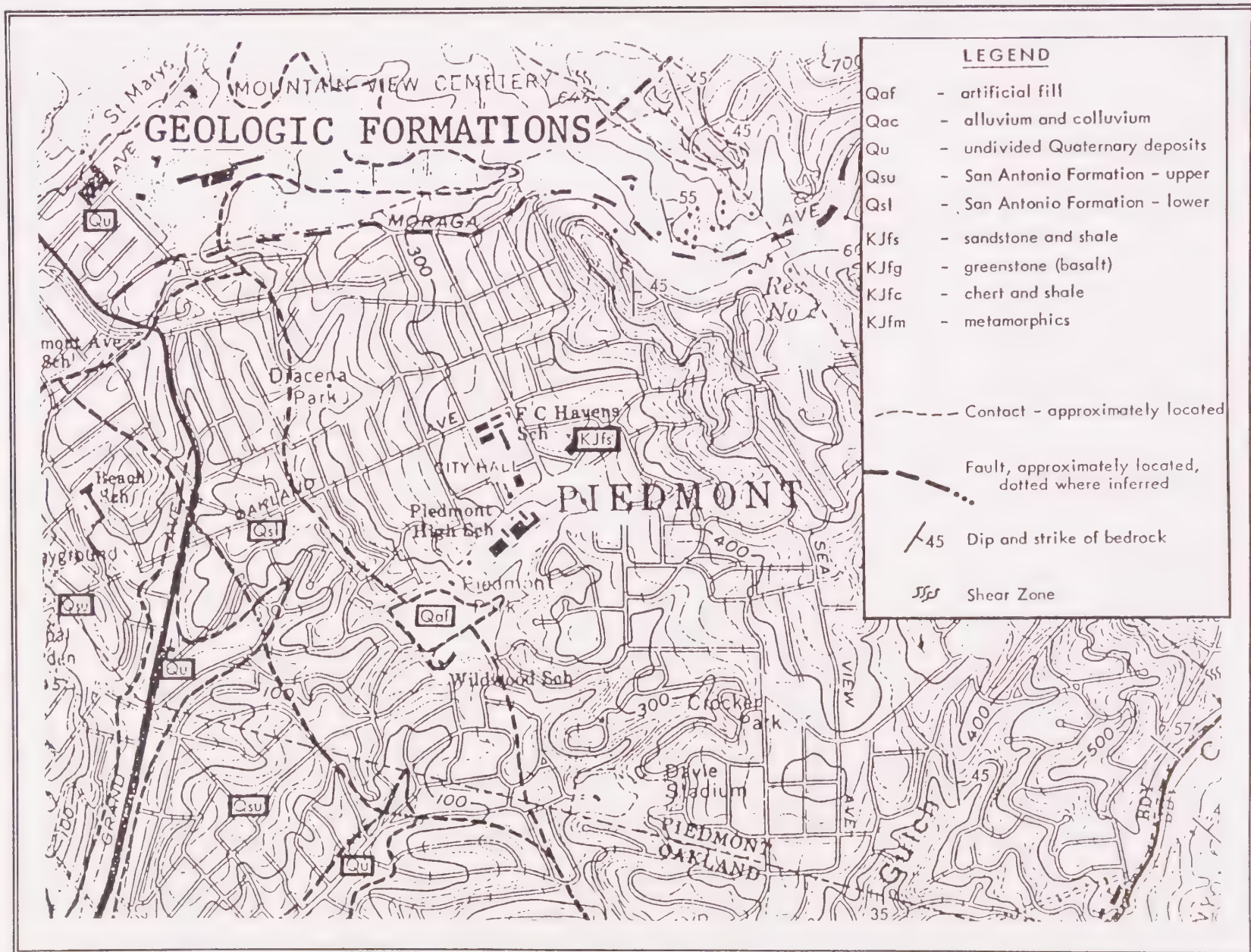
MAJOR CALIFORNIA EARTHQUAKE FAULTS



TABLE I-A
EARTHQUAKE PROBABILITIES BY FAULT

FAULT SEGMENT	EXPECTED MAGNITUDE	PROBABILITY 1990 - 2020
San Andreas Fault		
S. Santa Cruz	7	less than 1%
San Francisco	7	23%
North Coast	8	2%
Hayward Fault		
Southern East Bay	7	23%
Northern East Bay	7	28%
Rodgers Creek	7	22%

Source: Probabilities of Large Earthquakes in the San Francisco Bay Region,
USGS Circular 1053, 1990.



Ground Shaking

Ground shaking is the major hazard of a seismic event. The main factors affecting the intensity of shaking are: the characteristics of the earthquake (i.e., magnitude, location, direction of movement); the distance from the fault; the type of thickness of soil overlying bedrock; and the geometry of the soil/bedrock contact. Since Piedmont lies immediately adjacent to the active Hayward fault, it will be subject to very high bedrock acceleration from earthquakes originating nearby. Earthquakes originating from more distant faults will produce less intensive shaking.

Studies of ground shaking indicate that the intensity of bedrock shaking can be amplified on sites underlain by thick deposits of saturated sediment. In the City of Piedmont, there are no deep, soft saturated deposits. Consequently, it is expected that the severity of ground shaking will be nearly the same throughout the community.

Ground Failure

Ground failure can occur in several different forms: landsliding; liquefaction; settlement; lurching; and lateral spreading. Landsliding can occur independently or as a result of seismic activity. The City of Piedmont has relatively few landslides. The few instances of slope instability within the City of Piedmont are due largely to man-induced causes such as over-steepened or undercut slopes along roads. Some sliding occurs in periods of unusually heavy rainfall as in the corporation yard. Even with the apparent stability of the Franciscan formation, the hills are not exempt from slope instability damage. During a severe seismic event, some damage may occur to those homes placed on fill, especially if the fill was not properly benched, buttressed, and densely compacted. As shown on Exhibit I-3, Potential Geologic Hazards, the western portion of the City of Piedmont, underlain by Quaternary alluvial material, is more prone to landslides due to the presence of expansive clays, steep slopes, and poor consolidation.

Liquefaction generally occurs in loose, saturated sandy soils where, during intense shaking, the soil loses its strength and changes into a fluid-like substance not capable of carrying significant loads. Liquefaction presents a potential hazard in only a few areas of the City of Piedmont. Exhibit I-3, Potential Geologic Hazards, provides the location of these areas.

Differential settlement is the result of poorly compacted non-uniform soil. This condition only occurs in the City of Piedmont where there are areas of very recent alluvial soils. This only occurs in the few areas of the City that are also subject to liquefaction. Exhibit I-3, Potential Geologic Hazards, provides the location of these areas.

Lateral spread and lurching are phenomena which occur in soft materials such as bay muds. These conditions do not exist in the City of Piedmont.

Ground subsidence occurs as a result of prolonged pumping of groundwater, usually for domestic agricultural, or industrial use. The lowering of the water table can cause the ground to sink. This is not known to occur in the City of Piedmont since water is drawn from reservoirs rather than wells.

SLIDE RISK ZONES

II Medium

III Low

 LIQUEFACTION POTENTIAL



POTENTIAL GEOLOGICAL HAZARDS

Water Hazards

The City of Piedmont is not subject to many of the water hazards associated with seismic activity. Tsunamis or sea waves generated by earthquakes would not reach the City due to its elevation and distance from the San Francisco Bay.

Seiches, earthquake generated waves within enclosed bodies of water, have high potential of damaging property near shore. The bodies of water that are of potential concern to Piedmont (Reservoir #1, Reservoir #2, and Dingee Reservoir) are all covered and pose no threat due to seiches. Tyson Lake, which is small with steep banks, poses only a slight hazard in the event of a seiche.

Flooding can occur as a result of seismic activity or excess rainfall. Flooding due to an earthquake could occur from the sudden release of water due to structural failure of the reservoirs or Tyson dam. The flood path for Reservoir #1 would be through Indian Gulch and onto La Salle Avenue-Indian Road. The flood path of Reservoir #2 and Dingee Reservoir would be through Moraga Canyon. Exhibit I-4, Potential Water Hazards, provides the general path of potential flooding.

The potential for flooding from excess rainfall is minimal. The City of Piedmont is in Federal Emergency Management Agency (FEMA) designated Zone C which is designated as an area of minimal flood hazard. The natural and man-made storm drainage facilities are capable of accommodating most storm conditions. During severe storms, localized flooding may occur.

Structural Hazards

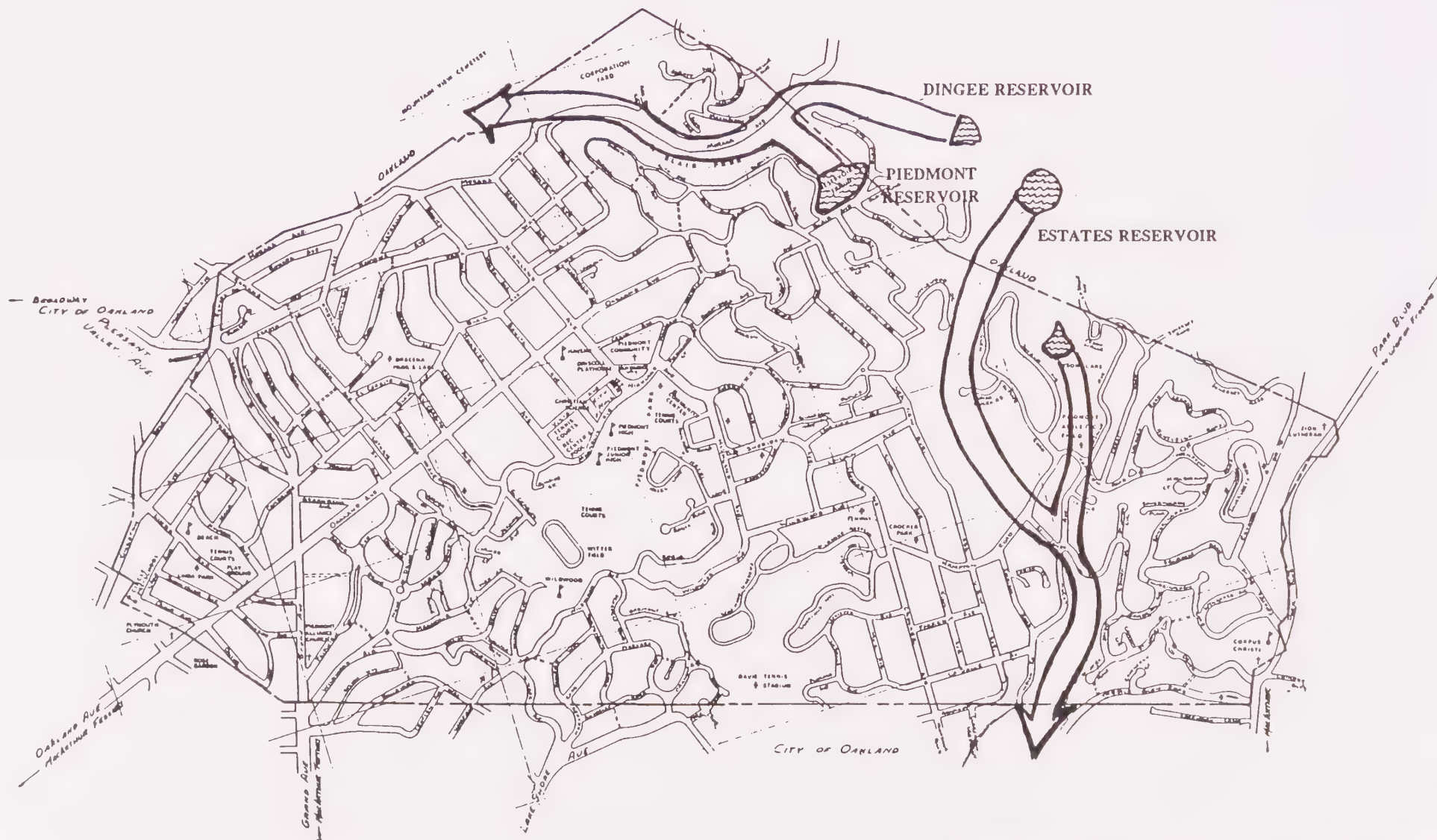
Structural hazards due to an earthquake can result in falling debris and partial or total collapse of buildings. A single-story wood frame residential structure, which is not constructed directly over a fault trace, is the most earthquake-resistant structure. In addition, structures built on firm bedrock have less damage. The City of Piedmont is a residential community of mainly 1 to 3 story wood frame residential structures constructed on relatively stable materials. Seismic dangers related to structural hazards are anticipated to be low.

Current Policies and Program

The State of California has taken important steps to deal with the hazards of seismic activity. The Field Act's safety objective for schools is nearly realized. The Alquist-Priolo Special Study Zones limit development on the five major fault systems, in particular along the Hayward Fault, where there are already a great many high occupancy public structures.

In 1972, the Legislature mandated the preparation of inundation maps by dam owners. In addition, there are programs requiring the identification and improvement of unsafe dams.

The City of Piedmont has in force a number of other, more effective measures to reduce seismic hazards. Construction on geologically suspect zones is regulated by Municipal Code (Building) section 5.2, subsection 2905(a), which requires a soils report if the slope is greater than 20 percent, and the Uniform Building Code, which allows the Building Inspector to require soils



POTENTIAL WATER HAZARDS

reports at his discretion. The Building Code also requires structures to resist a high level of lateral force. Codes and ordinances enhancing earthquake protection are considered with the revision of the Uniform Building Code every three years. As yet, there has been no comprehensive survey to date to identify and improve potentially hazardous buildings.

To enhance public awareness of the threats posed by and safety practices required by earthquakes, a City-wide information and education program has been instituted, and disaster plans have been drawn up for the Piedmont schools instructing students in what to do should an earthquake occur.

Fire Hazards

Fuel and vegetation management is an ongoing effort by the Piedmont Fire Department due to the close proximity of urban housing and dense vegetation/landscaping. The most serious threat of fire is during the hot, dry season from May to October, as evidenced by the Oakland/Berkeley Firestorm in October 1991.

The October 1991 fire ignited in tinder dry vegetation and moved quickly to consume the surrounding combustible structures. In addition to the dry vegetation, hot, dry weather conditions and wind exacerbated the situation and contributed to the spread of the fire. The City of Piedmont occupied the south western flank of the Oakland/Berkeley Firestorm. Two acres of the City were involved in the fire. Although there were no casualties or structural damage in Piedmont, the loss from the adjacent communities of Oakland and Berkeley included 23 deaths and 150 injuries, and the fire consumed approximately 3,000 dwellings, and burned approximately 2,000 acres of vegetation.

As a result of the fire, pre-planned mutual aid response (MAR) procedures have been established with neighboring fire districts to ensure quick response and backup in case of an emergency such as the Oakland/Berkeley Firestorm or a similar emergency. A cooperative effort between County Fire Agencies, utility companies, and community leaders has developed definitive goals and objectives to reduce the accumulation of vegetation and fuels within the identified fire threat zones. Implementation of these efforts began as early as the spring of 1993.

EMERGENCY PREPAREDNESS

Emergency Operations Plan

Since World War II, Piedmont has had an Emergency Operations Plan, called the Multi-hazard Functional Plan, for dealing with both wartime and peacetime emergencies. Peacetime emergencies include: earthquake, flood, dam failure, fire, major accident (transportation or industrial), hazardous material spill, civil disturbance, storm, epidemic, and critical pollution. The purposes of the plan are to:

- Provide a basis for the conduct and coordination of operations and the management of critical resources during emergencies;

- Make widely known the authority, responsibilities, functions and operations of civil government during emergencies;
- Provide a means of incorporating into the City's emergency organization any non-governmental agencies and organizations having resources necessary to meet unforeseen needs; and
- Establish emergency "disaster containers" of medical supplies, shelter, water, food, rescue and communications equipment.

The plan becomes operative under any of the following conditions:

- Automatically by the existence of a state of war emergency;
- Upon the proclamation of a state of emergency by the Governor; or
- On the order of the City Council, Mayor, or the City Administrator, who serves as Director of Emergency Services, when an actual or threatened local emergency has been proclaimed.

Disaster Containers

Disaster containers are maintained by the Fire Department, a citizens committee, and volunteers, and contain emergency caches of supplies. Basic medical dressings, cots, lighting, power, water, and emergency food preparation equipment as well as emergency "alternate" communications systems are among the selected supplies stored for minimal emergency volunteers and City staff. They are located at Beach, Wildwood, and Havens schools, and on the Hampton Field recreation property with a fifth container expected soon to be included in the Public Works Corporation Yard. The containers were initially donated "over seas metal shipping containers" converted to stationary storage. These used containers have proven somewhat short lived and require increasingly greater maintenance each year due to weather and vandalism. It is intended that each site will eventually have a "built up" storage unit constructed to replace the shipping containers. The Havens school site unit was replaced in 1990 incorporating the storage into a room attached to the rear of the Schoolmates building. The fifth storage unit in the City Corporation Yard will be constructed as a separate but attached section of their replacement restroom facility with completion planned for 1994.

Citizen Involvement

A committee of citizen volunteers have formed to assist in community emergency preparedness. Piedmont citizens are encouraged to participate in training programs sponsored by the Fire Department and the City of Oakland's "Citizens of Oakland Respond to Emergencies" (C.O.R.E.) focused on disaster preparedness. These programs include training in disaster response, light rescue, shelter management, first aid, neighborhood organization and personal as well as dwelling structural readiness. Some of these trained volunteers are recruited to staff the Disaster Containers and to function as "Block Captains" in the organized preparation of neighborhood groups.

Within City Council funding approval, a "back-up" amateur radio system has been purchased and installed in the Havens container. An organization of amateur radio enthusiasts formed a Piedmont chapter of Radio Amateur Civil Emergency Service (R.A.C.E.S.). This group will provide personnel to operate the back-up system in emergencies. A request submitted to FEMA for matching Federal funds to offset the costs of the radio system has gone forward. Future expansion of R.A.C.E.S. volunteers into training exercises within our community Emergency Operations Center (EOC) and multi-agency drills is planned for 1994 and 1995.

In the past two years, the Multi-hazard Functional Plan has been utilized for a cooperative City and Schools drill/exercise and during the October 20, 1991 "Fire Storm" the plan was put to a practical application test. The disaster container located on the Havens School property was activated and the adjacent "Schoolmates" building was opened and utilized as a temporary shelter for evacuated and displaced citizens.

Evacuation Routes

There are no specific designated evacuation routes in the City of Piedmont. In the event of an emergency, the designation of the evacuation routes would be the responsibility of the Police Chief and the Public Works Director. The designation of evacuation routes would be based on the nature of the emergency and the direction of the movement of the threat.

Peakload Water Supply Requirements

The peakload water supply requirements are not adequate in several areas in the City of Piedmont.

Minimum Road Widths

The minimum road width required for fire and emergency vehicles is 12 feet.

Clearance Around Structures

Property owners are encouraged to maintain a reasonable "defensible space" clearance of flammable vegetative materials around structures.

Oakland/Piedmont Mutual Response Areas Agreement

In November 1992, the City of Piedmont and the City of Oakland entered into a Mutual Response Areas (MRA) Agreement. The Agreement becomes effective when the "fire season" is declared by the Fire Chiefs of Piedmont and Oakland or when the Fire Chiefs jointly declare critical weather conditions. The Agreement applies to the MRAs known as Montclair, Piedmont Pines, Broadway Terrace, Trestle Glen, Estates Drive, Maxwellton Road, and Rose Avenue areas.

POLICE SERVICES

Staffing and Equipment

The Piedmont Police Department operates under the direction of the Chief of Police. The Department is divided into three divisions and have the following responsibilities:

<u>Administration</u>	<u>Operations</u>	<u>Support Systems</u>
Chief of Police	Patrol	Communications
Secretary	Investigations	Records
Senior Volunteers	Traffic	Purchasing
Personnel	Reserves	Evidence & Property
Payroll	Tactical Operations	Training
Dog Licensing	Internal Investigations	Crime Prevention
Fingerprinting	City-wide - Telephone System	Animal Control
Peddler Permits	Vehicle Maintenance	Budget
Citizen Letters	Motorcycle	Recruitment
	Crossing Guards	Planning & Research
		Background Investigations
		Canine Program

Total employee strength is 27 (20 sworn and 7 non-sworn personnel). The Piedmont Police Department is supplemented by fourteen (14) Reserve Officers and eighteen (18) senior citizen volunteers.

A great deal of emphasis is placed on the training program for police officers, with the purpose of maintaining "the level of competence of police officers" and upholding "the highest standards of mental and moral fitness demanded by the citizens of Piedmont." Eighty to eighty-five percent (80% to 85%) of the training costs are reimbursed by the California State Commission of Peace Officer Standards and Training.

The Police Department maintains a fleet of ten vehicles. A canine program was started to benefit the Department and citizens. The cost of initiating the program was donated by citizens.

In 1987, the Police Department computerized the records system and emergency dispatching system. The cost for the computer system and software was donated by citizens. The second phase of the computer project is to install mobile data terminals in the police vehicles. This will provide police officers in the field with access to local, state, and national computer systems to check on arrest warrants, stolen property, and stolen vehicle computer systems. This project was completed in 1994. The funding for this project was also provided by citizen donations.

Volume of Calls and Response Time

The Piedmont Police Department handles an average of 32 calls per day, or a monthly average of about 900 calls. Calls are handled jointly through a computerized communications system that is shared with the Fire Department and permits rapid communication with federal, state, and other

local law enforcement agencies. The consolidated dispatch office is the local answering point for 911 emergency calls from Piedmont citizens. The average response time to calls range two to three minutes for emergencies.

Traffic Accidents

In 1990, the Police Department initiated a traffic program by dedicating one officer assigned specifically to traffic enforcement. The officer works closely with citizens, the Public Works Departments, and other officers in investigating complaints of traffic offenses, accidents, and possible road hazards. By 1991, the number of traffic accidents were reduced. There was an increase in accidents in 1992 due to the rain and frequency of storms. The number of injury accidents decreased from 15 to 5. Table I-B provides traffic accident information for the last five years. In 1991, the Piedmont Police Department received an AAA citation fro pedestrian safety.

Crime Rates and Trends

Activity in Piedmont

The incidence of major offenses increased from 351 offenses in 1990 to 473 in 1993. The major offenses include the following:

	1990	1991	1992	1993
Homicide	1	0	0	0
Rape	0	0	2	0
Robbery	7	11	17	11
Assault	22	16	2	5
Burglary	50	73	98	125
Theft	235	281	303	267
Auto Theft	36	27	37	54
Total	351	408	463	473

Source: City of Piedmont, 1994.

Comparison with other Communities

Although there was an increase in crime in Piedmont, the increase was much less than reported in neighboring cities. For example, there is a 126.36 chance in 1,000 of being a victim of a major crime in the City of Berkeley compared to a 36.45 chance in 1,000 in the City of Piedmont. Piedmont's crime rate compares very favorably with County crime rates. In Alameda County, the City of Piedmont has the lowest number of crimes. Based on the number of crimes per 1,000 population, the City of Piedmont has the fourth lowest crime rate. The cities having a lower rate of crime per 1,000 population are Plesanton, Fremont, and Dublin. The City of Piedmont is surrounded by the City of Oakland which has the second highest crime rate in the county and near Berkeley which has the highest rate.

TABLE I-B

**CITY OF PIEDMONT
FIVE YEAR TRAFFIC ACCIDENT TABLE**

Classification	1989	1990	1991	1992	1993
Total Accidents	97	126	95	111	91
Injury Accidents	12	15	5	17	7
Fatalities	0	0	0	1	0
Non-Injury Accidents	61	80	65	93	84

Source: City of Piedmont, 1994

Outlook

In the 1980s there was a decline in crime in the City of Piedmont. In the 1990s, that trend has reversed itself and now crime is again on the rise. This is also true for the county, state and nation. Unlike many communities, the Piedmont Police Department has not grown in the number of personnel for the past 14 years. Due to the economic recession that is challenging state and local government, the prospect of the Piedmont Police Department increasing in the number of employees to combat a growing crime rate is low. In fact, not one sworn officer's position was filed during the 1993/94 Fiscal Year. The factors peculiar to Piedmont which may affect its crime rate:

- Piedmont is unique in that it is an "island" city surrounded by the City of Oakland, which has the second highest frequency of crime in Alameda County. Most of the suspects arrested for major offenses in Piedmont were not residents of Piedmont, but instead came from Oakland and other cities.
- The major roadways (Oakland Avenue, Grand Avenue, Moraga Avenue, Crocker Avenue and Park Boulevard) are direct feeders to Freeways 580 and 13, which provide quick exits out of the City of Piedmont.
- Piedmont also has public transportation routes (AC Transit) which provide inexpensive transportation into and out of the City.
- Piedmont is a wealthy community and can expect to attract the criminal element. The economic phenomenon of the two-career household causes many homes to be left empty during the day. Criminals are well aware of this and know the chances for a good "score" are enhanced when working in an affluent community like Piedmont.
- On the positive side, Piedmont for the most part has a stable population. There are no major colleges, universities, shopping areas or business districts to draw a high influx of transient people during certain times of the day.
- Residents of Piedmont have a very low tolerance of crime or criminals and frequently will report suspicious activity or persons to the Police Department. Citizens of Piedmont are very supportive of the Police Department.
- Training for police officers has become a factor of greater influence in controlling crime. Each year, there are significant revisions in criminal statutes and numerous case decisions that affect how these laws may be applied. This has created a need for continued training. The Police Department and the City have made a commitment to upgrade police training.

Police Services Programs

The Piedmont Police Department has instituted several programs aimed at citizen protection and crime prevention, including:

- **Vacant Home Check Program** - which provides daily checks of vacant homes by Senior volunteers.
- **Your Are Not Alone Program** - an outreach program whereby police dispatchers call participants daily at a mutually preselected hour to determine if assistance is needed.
- **The Neighborhood Watch Crime Prevention Program.**
- **Home Security Checks.**
- **Operation Identification** - whereby citizens can have personal property marked with a code number (usually the California Drivers License number) to ensure quick identification if stolen property is retrieved.
- **Canine Program.**
- **The Minor Offenders Program** - is a criminal diversion program for juveniles caught committing minor crimes.
- **D.A.R.E. (Drug Abuse Resistance Education) Program** - a trained officer teaches drug resistance in the 6th and 7th grades as part of the normal school curriculum.
- **Mature Drivers Education** - trained senior volunteers teach a drivers education course for those 55 years of age or older. Successful completion of the course qualifies for possible premium reduction on car insurance.
- **Piedmont Citizens Task Force Against Crime** - a group of residents that assist the Chief of Police in crime prevention projects.
- **Reserve Officer Bicycle Patrol** - reserve officers patrol parks, school property, and public facilities on weekends.
- **Volunteer Park Patrol** - volunteers patrol parks during afternoon hours on weekdays.
- **Mace-Pepper Spray Self-Defense Classes** - officers teach citizens the proper use of chemical agents for self-defense and upon completion of the class, issue certificates to possess and carry chemical agents.

FIRE SERVICES

Staffing and Equipment

The Piedmont Fire Department has a staff of 22 personnel consisting of a chief, three captains, two lieutenants, one paramedic lieutenant, three engineers, nine paramedic/firefighters, and three firefighters. The Department has a 56-hour operation which operates under a three-platoon system. Each platoon works a 24-hour shift. In case of an emergency or disaster, back-up is provided by mutual aid pacts from surrounding communities and supplemented by off-duty personnel.

The Piedmont Fire Department falls short of the National Fire Protection Association (NFPA) and Insurance Services Office's (ISO) recommendation for four person engine companies and five person truck companies by two firefighters per platoon. Administrative management is accomplished with the Fire Chief functioning as the sole weekly (Monday through Friday) department employee. Staff intends to continue to petition the City Council for staffing levels to be restored to the Department's pre-proposition 13 numbers. Eight person platoons and the restoration of the Department's Assistant Chief position are staff long range goals. This single fire station is centrally located in the City Hall building.

The Department places a great deal of emphasis on training and drills following the guidelines and requirements of both the National Fire Protection Association and the Insurance Services Office. The Department has a Class III rating from the Insurance Services Office. In addition to emergency medical and firefighting duties, the Piedmont Fire Department provides a number of public educational courses to the community, including, but not limited to, Cardiopulmonary Resuscitation (CPR), Safe Sitter, and Disaster/Earthquake preparedness courses. The Department also staffs the Paramedic Ambulance service which responds to all 911 emergency calls from the community. Each non-paramedic firefighter is certified as an Emergency Medical Technician IA (EMT-IA) and is qualified to administer all "Basic Life Support" medical aid (see Paramedics Services section).

Most of the emergency apparatus belonging to the Piedmont Fire Department is in its early lifespan. Engine Number 2841 is expected to be replaced in fiscal year 1995/96. The replacement engine will be specified with factory installed "state of the art" personnel and vehicular safety equipment and fire suppression technology proven extraordinarily effective in wildland/ urban interface fires such as Piedmont experienced in October of 1991. Front line rescue/ambulances are usually replaced at 5 year intervals due to the frequency of use. "Staff" vehicles (Chief's car) are typically replaced factoring both years of service and total vehicle accumulated miles. No 2800 is planned for replacement in calendar year 1994. The following represents year and make of the major department apparatus:

- Engine No. 2841 - 1974 Van Pelt
- Engine No. 2843 - 1989 General/Spartan
- Squirt/Attach No. 2842 - 1989 General Spartan
- Paramedic No. 2891 - 1986 Cayelcraft
- Chief's Car No. 2800 - 1988 Chevrolet S-10
- Paramedic No. 2890 - 1990 Road Rescue
- Utility No. 2896 - 1990 Chevrolet Van

Volume of Calls and Response Time

There were a total of 907 calls to the Fire Department in 1993. Of this total, 547 were emergency medical responses. The remaining 360 calls were fire and utility related emergencies. All 911 emergency calls are currently processed by a dispatch office that is shared by the Fire and Police Departments. Use of a computerized dispatching system permits rapid communication with federal, state, and other local firefighting organizations. The average response time in Piedmont is two to three minutes. The City has entered into an agreement to link the Oakland Fire Departments Computer Aided Dispatch (CAD) office and their newly acquired 800 MHz radio communications system with Piedmont Dispatch, the Fire Department business office, and Emergency Fire apparatus. It is expected as the Police Department communications system also implements joint radio frequencies with the Oakland Police Department's 800 MHz system, an opportunity to phase out both the Police and Fire Department's existing UHF/VHF radio system will be available.

Fire Prevention Programs

The Department Fire Prevention Office (FPO) develops and coordinates several inspection programs throughout the community. Inspections include commercial structures, preschools, day care facilities, public assembly buildings, residential sprinkler systems, safety monitoring of hazardous tank removal, and fuel management issues in the City's wildland/urban interface areas. The FPO is instrumental in development and amending the City Code as it relates to hazard abatement and vegetation management in the community. A "Residential Sprinkler Ordinance" was approved and included in Chapter 5 of the Piedmont City Code in 1993 requiring all newly constructed dwellings to have a NFPA 13R automatic sprinkler system installed during construction. Under the direction of the FPO, engine companies follow a scheduled routine of inspections to provide consistent enforcement of codes.

Special hazards reported by citizens and those identified by the department have specific actions recommended within the scope of the FPO.

Public education is granted a high priority by the FPO. Special focus in preschools and in the "Schoolmates" program sponsored by the Recreation Department for children of the community. Particular events and Department Fire Prevention week open house are held and directed to provide information for public awareness of fire safety and disaster preparedness.

A program goals for the department FPO is to introduce the NFPA's "Learn Not to Burn" course into the grades K through 6th school year curriculum.

PARAMEDIC SERVICES

Existing Staffing and Training

Medical emergencies in the City of Piedmont are managed by the Emergency Medical Coordinator in the Fire Department. Department equipment and personnel respond to all 911 emergencies with Advanced Life Support (ALS) equipped apparatus and EMT-P trained paramedic/firefighters. This

high quality emergency medical service is supported by a County Paramedic tax to each of Piedmont's residents. Fire Department personnel are trained at two different state and county standard levels of certified life support. Emergency Medical Technician IA (EMT-IA) personnel provide Basic Life Support (BLS) and Cardiopulmonary Resuscitation (CPR). Emergency Medical Technician - Paramedics (EMT - P) are trained in ALS, Basic Trauma Life Support, and Advanced Cardiac Life Support. In addition to the previously described paramedic/rescue ambulance and reserve ambulance apparatus, the Department operates a Paramedic Engine Company as a back-up "first responder" ALS unit. The Department also has an informal agreement with the City of Berkeley to provide medical/ambulance mutual aid should Piedmont's units be involved or otherwise not available.

Volume of Calls

The 1993, emergency medical responses totaled 547, with approximately 45 medical calls per month. The following types and number of requests for emergency care were received by the Fire Department in 1993:

- | | |
|-------------------------------------|--------------------|
| • Medical Emergencies | 50% of total calls |
| • Traumatic Emergencies | 36% of total calls |
| • Non-transport/assists | 14% of total calls |
| • Medical calls outside of Piedmont | 17% of total calls |

The primary emergency receiving hospitals in the north zone of Alameda County are:

- Children's Hospital Medical Center, 51st and Grove Streets, Oakland (Pediatric Trauma Center)
- Kaiser Permanente Hospital, MacArthur and Broadway, Oakland
- Summit Hospital, 30th and Summit Streets, Oakland
- Highland-Alameda County Hospital, 2701 14th Avenue, Oakland (North zone paramedic base hospital and trauma hospital); and
- Alta Bates Hospital, Colby at Ashby, Berkeley (County Burn Unit).

SECTION J

NOISE BACKGROUND INFORMATION

NOISE BACKGROUND INFORMATION

INTRODUCTION

In 1974, the City of Piedmont adopted a Noise Element. In 1994, a new noise measurement program was conducted at locations throughout the City of Piedmont by Charles M. Salter Associates, Inc. The results of the 1994 noise measurement program is provided at the end of this section. The following provides a summary of community noise concepts and the findings of the noise analyses conducted in 1974 and 1994.

The City of Piedmont's size, location, and topography produce a noise situation unique for a city of its relatively urban situation. The City of Piedmont encompasses approximately 1.8 square miles and does not have any freeways, airports, railways, or rapid transit systems within the City's boundaries. The major transportation facilities, Interstate Freeway 580 and State Highways 24 and 13, are outside of the City limits at a relative distance related to noise. In addition, the City's hilly terrain provides acoustical shielding. Because of this, the studies of noise levels within the City of Piedmont have been directed at noise originating locally, within the City boundaries, or the adjacent areas in the City of Oakland.

CONCEPTS OF COMMUNITY NOISE

Background

Three aspects of community noise are important in determining subjective response:

- Level (i.e. magnitude or loudness) of the sound
- The frequency composition or spectrum of the sound
- The variation in sound level with time.

Airborne sound is a rapid fluctuation of air pressure and local air velocity. Sound levels are measured and expressed in decibels (dB) with 0 dB roughly equal to the threshold of hearing. The frequency of a sound is a measure of the pressure fluctuations per second measured in units of hertz (Hz). Most sounds do not consist of a single frequency, but are comprised of a broad band of frequencies differing in level. The characterization of sound level magnitude with respect to frequency is the sound level spectrum. A sound level spectrum is often described in octave bands which divide the audible human frequency range (i.e. from 20 to 20,000 Hz) into ten segments.

Frequency Weighting

Many rating methods exist to analyze sound of different spectra. The simplest method is generally used so that measurements may be made and noise impacts readily assessed using basic acoustical instrumentation. This method evaluates all frequencies by using a single weighting filter that progressively de-emphasizes frequency components below 1,000 Hz and above 5,000 Hz. This frequency weighting reflects the relative decreased human sensitivity to low frequencies and to extreme high frequencies. This weighting is called A-weighting and is applied by an electric filter in all U.S. and international standard sound level meters.

Noise Exposure

Noise exposure is a measure of noise over a period of time, whereas noise level is a single value at an instant in time. Although a single sound level may adequately describe community noise at any instant in time, community noise levels vary continuously. Most community noise is produced by many distant noise sources which produce a relatively steady background noise having no identifiable source. These distant sources change gradually throughout the day and include traffic, wind in trees, and distant activities. Superimposed on this slowly varying background is a succession of identifiable noise events of brief duration. These include nearby activities such as single vehicle passbys or aircraft flyovers which cause the community noise level to vary from instant to instant.

A single number called the equivalent sound level (L_{eq}) is used to describe noise varying over a period of time. The L_{eq} is the average noise exposure level over a period of time (i.e. the total sound energy divided by the duration). It is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period. The L_{eq} is useful in describing noise over a period of time with a single numerical value.

Discrete short duration transient noise events, such as aircraft flyovers, may be described by their maximum A-weighted noise level or by their sound level exposure level (SEL). The SEL value is the preferred description because measured results may be more reliably repeated and because the duration of the transient event is incorporated into the measure. Maximum levels of transient events vary with instantaneous propagation conditions while a total energy measure, like SEL, is more stable. The SEL of a transient event is a measure of the acoustic energy normalized to a constant duration of one second. The SEL differs from the L_{eq} in that it is the constant sound level containing the same acoustic energy over the entire measurement period. The SEL may be considered identical to the California standard Single Event Noise Exposure Level (SENEL).

Table J-A provides information on the range of typical outdoor noise environments. SEL values may be summed on an energy basis to compute L_{eq} values over a period of time. This is useful in modeling noise in areas exposed to numerous transient noise events, such as communities around airports. Hourly L_{eq} values are called Hourly Noise Levels (HNL).

In determining the daily measure of community noise, it is important to account for difference in human response to daytime and nighttime noise. During the nighttime, exterior background noise levels are generally lower than in the daytime. Most household noise also decreases at night and exterior noise intrusions become more noticeable. People are more sensitive to noise at night than during other periods of the day.

TABLE J-A

RANGE OF TYPICAL OUTDOOR NOISE ENVIRONMENTS		
Sound Source	Decibels (dBA)	Noise Effects
Jet plane	130	Painfully loud, rapid hearing loss
Amplified rock music	120	Maddening sound. Evidence that noise can interfere with work performance.
Shout (6 inches)	100	
Jackhammers (50 feet)		
Diesel locomotive (50 feet)	90	Federal industrial 8-hour exposure time. Well-established that noise level this high can contribute to hearing loss.
Motorcycle (50 feet)		
Heavy truck (50 feet)		
Power lawnmower (3 feet)	80	Noise very annoying.
Standard passenger car (50 feet)	70	Noise level for potential hearing loss begins; hard to use phone.
Dishwasher, clothes washer, stove fan (operator's distance)	50	Stress reactions become obvious. Noise intrudes on normal speech at distances greater than 5 feet.
Average business office	40	Some speech interference.
Living room (no T.V.)	30	Quiet, sleep undisturbed.
Bedroom	20	Very quiet.
Whisper (15 feet)	10	Sound just audible.
Broadcast studio	0	Hearing limit.

Source: Pacific Gas & Electric Company

To account for human sensitivity to nighttime noise, the day-night sound level (DNL or L_{dn}) descriptor was adopted by the Environmental Protection Agency (EPA) to describe community noise exposure from all sources. The DNL represents the 24-hour A-weighted equivalent sound level with a 10-dB penalty added for the nighttime noise between 10:00 pm to 7:00 am.

In California, the Community Noise Equivalent Level (CNEL) is the adopted standard. DNL and CNEL are typically computed by energy summation of HNL values, with the proper adjustment applied for the period of evening or night. The CNEL is computed identically to the DNL but with the addition of a 5-dB penalty for evening (i.e., 7:00 pm to 10:00 pm) noise. The CNEL value is typically less than 1 dB above the DNL value. Noise exposure measures such as Leq, SEL, HNL, DNL, and CNEL are all A-weighted with units expressed in decibels.

Subjective Response to Noise

The effects of noise on people can be classified into three general categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction.
- Interference with activities such as speech, sleep and learning.
- Physiological effects such as anxiety or hearing loss.

The sound levels associated with community noise usually produce effects only in the first two categories. No universal measure for the subjective effects of noise has been developed, nor does a measure exist for the corresponding human reactions from noise annoyance. This is primarily due to the wide variation in individual attitude regarding the noise source(s).

An important factor in assessing a person's subjective reaction is to compare the new noise environment to the existing noise environment. In general, the more a new noise exceeds the existing, the less acceptable it is. Therefore, a new noise source will be judged more annoying in a quiet area than it would in a noisier location.

Knowledge of the following relationships is helpful in understanding how changes in noise and noise exposures are perceived.

- Except under special conditions, a change in sound level of 1 dB cannot be perceived.
- Outside of the laboratory, a 3-dB change is considered a just noticeable difference.
- A change in level of at least 5 dB is required before any noticeable change in community response would be expected.
- A 10-dB change is subjectively heard as an approximate doubling in loudness and almost always causes an adverse community response.

Combination of Sound Levels

Because people perceive both the level and frequency of sound in a non-linear way, the decibel scale is used to describe sound levels. The frequency scale is also measured in logarithmic increments. Decibels, measuring sound energy, combine logarithmically. A doubling of sound energy (for instance, from two identical automobiles passing simultaneously) creates a 3-dB increase (i.e. the resultant sound level is the sound level from a single passing automobile plus 3-dB). The rules for decibel addition used in community noise prediction are:

- If two sound levels are within 1-dB of each other, their sum is the highest value plus 3-dB.
- If two sound levels are within 2 to 4 dB of each other, their sum is the highest value plus 2-dB.
- If two sound levels are within 5 to 9 dB of each other, their sum is the highest value plus 1-dB.
- If two sound levels are greater than 9 dB apart, the contribution of the lower value is negligible and the sum is simply the higher value.

EXISTING NOISE IN THE CITY OF PIEDMONT

With the exception of Interstate Freeway 580, which affects some portions at the west end of the City of Piedmont, local vehicle traffic is the primary source of noise within the City of Piedmont. In 1974, noise contours were developed by Bolt, Beranek and Newman (BBN) using a combination of actual field measurements and analytical modeling techniques. The field measurements included tape recordings of representative samples at five locations for statistical analysis and short-term direct measurements at fourteen additional locations. BBN used noise modeling techniques which took into account such factors as traffic flow rate, population density, and transit bus schedules to supplement the measured data.

In 1994, a new noise measurement program was conducted by Charles M. Salter Associates, Inc. for seven locations throughout the City of Piedmont. Continuous and simultaneous or "spot" measurements were conducted at two of the locations. The continuous noise monitoring employed digital programmable sound level meters which indicated the A-weighted sound level each half second continuously throughout a 24-hour period. The sound level meters were programmed to provide hourly statistical summaries throughout the recording period. The L_{eq} values (also called hourly noise levels or HNLs) were used to compute the day-night sound level (DNL or L_{dn}) 24-hour measures.

Shorter duration measurements were also conducted for five additional measurement positions. The short-term statistical results were used to compute the estimate of the 24-hour DNL value for each of the locations.

Table J-B provides the noise measurement results for the two continuous and simultaneous measurement locations and the noise measurement results for the five shorter duration measurement locations. Exhibit J-1 provides the noise contours. Based on the conclusions of the 1994 noise measurement program, there is very little change in the noise exposure environment from the 1974 Noise Element.

Exposure to noise in the City of Piedmont depends almost directly upon proximity to one of the local main traffic arteries, which include Grand Avenue, Highland Avenue, Moraga Avenue, Oakland Avenue, or Park Boulevard. Residences or locations facing these roads experience the greatest noise levels while the noise levels at locations only half a block away are significantly lower. The lower levels are due both to the normal loss in noise level with distance from the source, and the noise barrier provided by the first row of housing or buildings adjacent to these roads.

Locations roughly 500 feet or more from any of the major arteries have low noise levels for a community of Piedmont's population density. The relatively hilly terrain of the City of Piedmont provides natural noise shielding for these areas. In general, the noise from local residential traffic does not intrude and L_{dn} noise levels are 10 to 15 decibels lower than normal. Certain regions of the City of Piedmont within canyons or ravines have an even quieter environment as a result of this shielding effect.

PROJECTED NOISE LEVELS IN THE CITY OF PIEDMONT

There is no projected change in the noise levels in the community based on the assumptions provided in the Land Use Element and Circulation Element of this General Plan.

TABLE J-B
CITY OF PIEDMONT
NOISE MEASUREMENT RESULTS

LOCATION		L ₁₀	L ₃₃	L ₅₀	L ₉₀	L _{eq}	DNL ¹
A	Oakland Avenue between Monte Vista Avenue and Olive Avenue	(see data report provided at end of Section J)					63
B	Moraga Avenue between Ramona Avenue and Monticello Avenue	(see data report provided at end of Section J)					66
C	Highland Avenue between Moraga Avenue and Park Way	67	64	62	50	65	69 ²
D	Magnolia Avenue between Bonita Avenue and Hillside Avenue	62	57	53	48	58	62 ²
E	Grand Avenue between Cambridge Avenue and Oakland Avenue	68	62	60	51	65	71 ²
F	Linda Avenue between Kingston Avenue and Lake Avenue	62	57	53	46	59	65 ²
G	Trestle Glen Road between Park Boulevard and Cavanaugh Court	54	49	46	40	52	56 ²

Source: Charles M. Salter, Inc., 1994.

L₁₀ = Sound level exceeded 10 percent of the time.

L₃₃ = Sound level exceeded 33 percent of the time.

L₅₀ = Sound level exceeded 50 percent of the time.

L₉₀ = Sound level exceeded 90 percent of the time.

L_{eq} = Equivalent sound level.

DNL = Day-night sound level or L_{dn}.

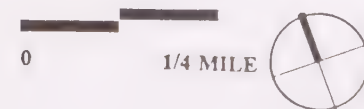
¹ DNL is computed identically to CNEL, except the CNEL includes the addition of a 5-dB penalty for evening (i.e. 7:00 p.m. to 10:00 p.m.)

² Estimated 24-hour values from same recordings.



NOISE CONTOURS IN CITY OF PIEDMONT

CITY OF PIEDMONT GENERAL PLAN



NOISE MEASUREMENT PROGRAM RESULTS

Charles M Salter Associates Inc

20 July 1994

Ms. Lauren Jue
EDAW, Inc.
1920 Main Street, Suite 450
Irvine, CA 92714

Subject: Piedmont Noise Element
CSA Project No. 94-167

Dear Lauren:

This letter presents the results of the noise measurement program and forwards the existing noise contours for the Noise Element of the General for the City of Piedmont. The noise measurement program was conducted 8 and 9 June 1994 at seven locations throughout Piedmont. These locations, shown on the following figure, are:

- A. Oakland Ave between Monte Vista Ave and Olive Ave
- B. Moraga Ave between Ramona Ave between Ramona Ave and Monticillo Ave
- C. Highland Ave between Moraga Ave and Parkway
- D. Magnolia Ave between Bonita Ave and Hillside Ave
- E. Grand Ave between Cambridge Ave and Oakland Ave
- F. Linda Ave between Kingston Ave and Lake Ave
- G. Trestle Glen Rd between Park Blvd and Cavanaugh Ct

Continuous and simultaneous measurements were conducted at locations A and B. Results are shown graphically in the following figures. This continuous noise monitoring employed digital programmable sound level meters which write the A-weighted sound level each half second continuously throughout a 24-hour period. The sound level meters were programmed to provide hourly statistical summaries

throughout the recording period. The L_{eq} values (also called hourly noise levels or HNLs) were used to compute the L_{dn} (or DNL) 24-hour measures. The following Figure 1 and Figure 2 graphically show the variation in L_{eq} values throughout the 24-hour monitoring periods. Attachment A, are the data reports for each of the monitoring locations.

Noise Measurements Results

Location	L_{10}	L_{33}	L_{50}	L_{90}	L_{eq}	DNL
A	(see data report)					63
B	(see data report)					66
C	67	64	62	50	65	69*
D	62	57	53	48	58	62*
E	68	62	60	51	65	71*
F	62	57	53	46	59	65*
G	54	49	46	40	52	56*

* Estimated 24-hour values from same recordings

Shorter duration measurements were conducted on 8 June for the other five measurement positions (i.e., C through G). The short-term statistical results were used to compute the estimate of the 24-hour DNL value for each of the locations, as shown in the table above. The field data sheets for this measurement program, Attachment B, identify the exact measurement locations and specific noise sources observed during each measurement period.

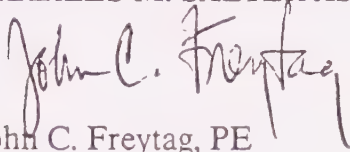
The enclosed noise contour map shows very little change in the noise exposure environment over that from the previous noise element. Contours were developed from noise predictions associated with traffic, speeds and volume. The contours were also checked against the noise monitoring results and found to be within suitable tolerances.

Ms. Lauren Jue
20 July 1994
Page 3

This completes my report on the noise environment in the City of Piedmont for your preparation of the Noise Element of the General Plan. Please do not hesitate to contact me with questions or for clarification. It has been a pleasure working with you on this project and I look forward to working with you again soon on future projects.

Very truly yours,

CHARLES M. SALTER ASSOCIATES, INC.


John C. Freytag, PE
Director

JCF/esd
JL20JCF

ATTACHMENT A



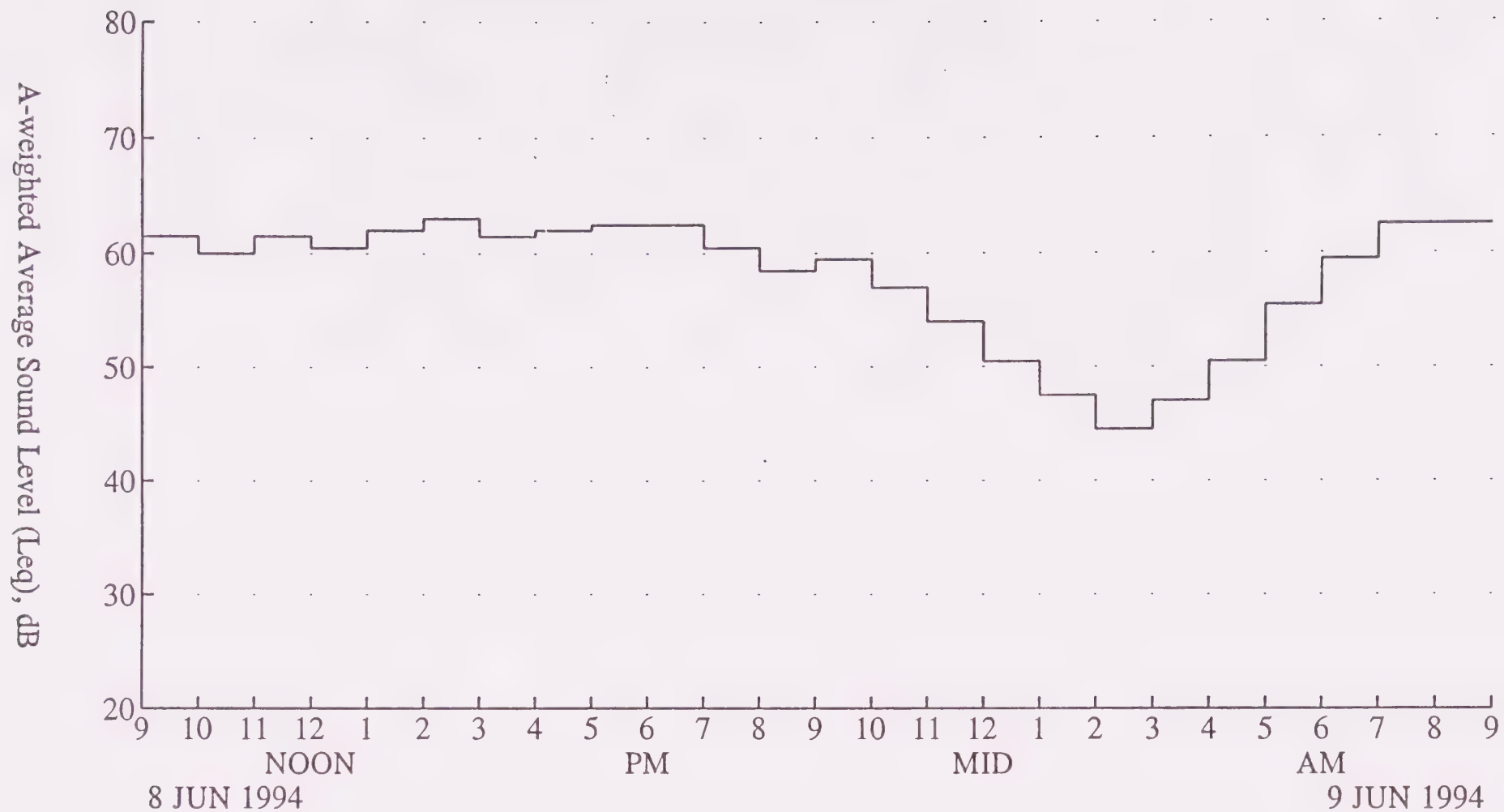


Figure 1: Piedmont Noise Element
Location A: Oakland Avenue
30 ft n/o curb, b/w Monte Vista & Olive
Ldn = 63 dB

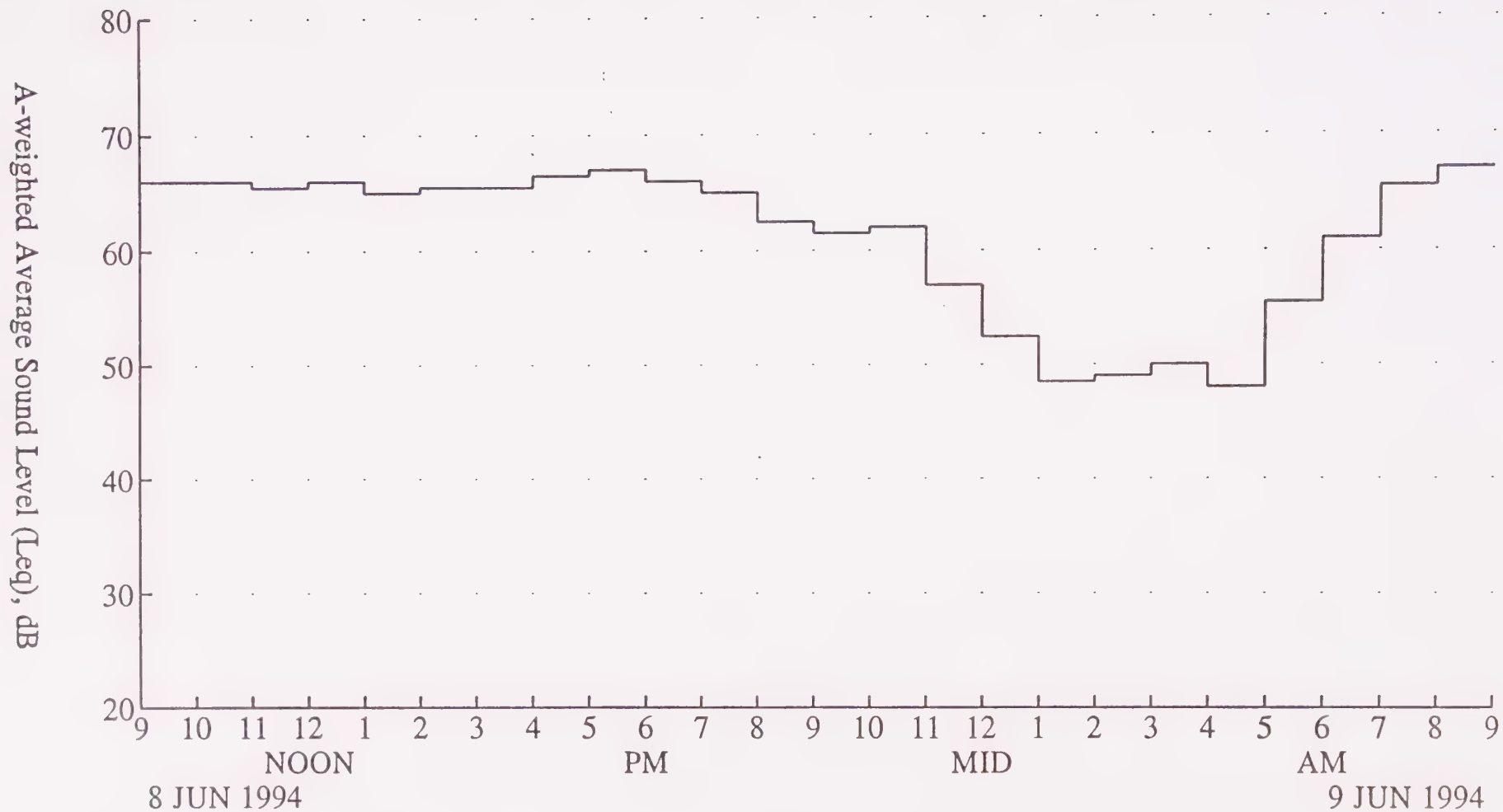


Figure 2: Piedmont Noise Element
Location B: Moraga Avenue
22 ft n/o curb, b/w Ramona & Monticello
 $L_{dn} = 66$ dB

File Name: PMONTA
Description: Piedmont Noise Element
Location A: Oakland Avenue
30 ft n/o curb, b/w Monte Vista & Olive
Report Date: 06-09-1994 Time: 10:29:02 Engr:
Serial #: 700B1120

Page 1

D A T A R E P O R T

Run Date 06/08
Stop Date 12/31
Run Time 1 09:00
Stop Time1 99:00
Run Time 2 99:00
Stop Time 2 99:00
R/S 01
Memory 5264.0

LVL 60.3
Time 0024:58:46
SEL 109.9
Lmin 35.5
Lmax 80.5
Lpk 105.0
L10 64.5
L33 59.5
L50 55.0
L90 41.0
OVLd 00
RMS Exc 0001
Pk Exc 0000
Dose 0.3
Proj 0.1

Crit 90.0
Thld 32.0
Exch 3
RMS Thld 80.0
Pk Thld 140.0
Hyst 0

Excd 1
Intv 1
Dur 01:00
Auto-Stop 0
LDL 0
Ln 1

Hist 0
Save Pk 0
Per 60.0

Detc SLOW
Wght A
Pk Unwgt 0
Cal 15.0

File Name: PMONTA
Description: Piedmont Noise Element
Location A: Oakland Avenue
30 ft n/o curb, b/w Monte Vista & Olive
Report Date: 06-09-1994 Time: 10:29:02 Engr:

Page 2

E X C E E D A N C E R E P O R T
Cnt Leq SEL Lmax Lpk Date Time Dur Pk Ov

1 80.5 76.0 80.5 91.0 8 JUN 21:21:39 0:00 0 0

File Name: PMONTA
 Description: Piedmont Noise Element
 Location A: Oakland Avenue
 30 ft n/o curb, b/w Monte Vista & Olive
 Report Date: 06-09-1994 Time: 10:29:02 Engr:

Page 3

I N T E R V A L			R E P O R T									
Cnt	Date	Time	Dur	Leq	Lmax	L10	L33	L50	L90	Lmin	Ex	Ov

1	8 JUN	9:00	1:00	61.5	78.0	65.0	62.0	59.0	49.0	40.0	0	0
2	8 JUN	10:00	1:00	60.0	76.5	64.5	60.0	56.0	46.0	38.5	0	0
3	8 JUN	11:00	1:00	61.5	79.5	65.0	61.0	58.5	48.5	41.0	0	0
4	8 JUN	12:00	1:00	60.5	75.5	64.5	61.0	58.0	49.5	41.0	0	0
5	8 JUN	13:00	1:00	62.0	77.0	65.0	62.5	60.5	56.5	47.0	0	0
6	8 JUN	14:00	1:00	63.0	79.0	65.5	63.0	61.0	55.5	42.0	0	0
7	8 JUN	15:00	1:00	61.5	76.5	65.0	61.5	59.0	50.5	44.0	0	0
8	8 JUN	16:00	1:00	62.0	76.0	65.5	62.5	60.5	50.0	41.0	0	0
9	8 JUN	17:00	1:00	62.5	79.5	65.5	63.0	61.0	49.5	41.0	0	0
10	8 JUN	18:00	1:00	62.5	77.5	66.0	62.5	60.5	48.5	39.5	0	0
11	8 JUN	19:00	1:00	60.5	74.5	64.5	60.5	57.0	46.5	40.5	0	0
12	8 JUN	20:00	1:00	58.5	72.0	63.0	58.0	54.0	45.0	42.0	0	0
13	8 JUN	21:00	1:00	59.5	80.5	63.0	58.0	52.5	44.5	42.5	1	0
14	8 JUN	22:00	1:00	57.0	71.0	62.0	55.0	49.5	43.5	41.5	0	0
15	8 JUN	23:00	1:00	54.0	69.0	59.0	48.0	44.5	42.0	40.0	0	0
16	9 JUN	0:00	1:00	50.5	74.0	50.0	42.5	42.0	40.0	38.5	0	0
17	9 JUN	1:00	1:00	47.5	68.0	46.5	43.0	41.5	39.5	37.5	0	0
18	9 JUN	2:00	1:00	44.5	69.0	43.5	40.0	39.0	37.5	36.0	0	0
19	9 JUN	3:00	1:00	47.0	69.0	44.0	41.0	39.5	37.5	35.5	0	0
20	9 JUN	4:00	1:00	50.5	73.5	48.0	43.0	41.5	39.0	37.5	0	0
21	9 JUN	5:00	1:00	55.5	73.5	58.0	51.0	50.0	47.5	44.5	0	0
22	9 JUN	6:00	1:00	59.5	77.5	63.5	57.0	53.0	49.5	46.5	0	0
23	9 JUN	7:00	1:00	62.5	79.0	66.0	62.5	59.5	50.5	45.5	0	0
24	9 JUN	8:00	1:00	62.5	76.0	65.5	63.0	61.0	52.5	48.0	0	0

I N T E R V A L R E P O R T

Cnt	Date	Time	Dur	Leq	Lmax	L10	L33	L50	L90	Lmin	Ex	Ov
25	9 JUN	9:00	0:58	61.5	77.0	65.0	61.5	59.0	51.0	45.5	0	0

Piedmont Noise Element
Location A: Oakland Avenue
30 ft n/o curb, b/w Monte Vista & Olive

06-09-1994
10:29:02
PMONTA

Date	Start Time	Leq
8 JUN	9:00:01	61.5
8 JUN	10:00:01	60.0
8 JUN	11:00:01	61.5
8 JUN	12:00:01	60.5
8 JUN	13:00:01	62.0
8 JUN	14:00:01	63.0
8 JUN	15:00:01	61.5
8 JUN	16:00:01	62.0
8 JUN	17:00:01	62.5
8 JUN	18:00:01	62.5
8 JUN	19:00:01	60.5
8 JUN	20:00:01	58.5
8 JUN	21:00:01	59.5
8 JUN	22:00:01	57.0
8 JUN	23:00:01	54.0
9 JUN	0:00:01	50.5
9 JUN	1:00:01	47.5
9 JUN	2:00:01	44.5
9 JUN	3:00:01	47.0
9 JUN	4:00:01	50.5
9 JUN	5:00:01	55.5
9 JUN	6:00:01	59.5
9 JUN	7:00:01	62.5
9 JUN	8:00:01	62.5

Ldn = 62.7 CNEL = 63.2

File Name: PMONTB
Description: Piedmont Noise Element
Location B: Moraga Avenue
22 ft n/o curb, b/w Ramona & Monticello
Report Date: 06-09-1994 Time: 10:31:40 Engr:
Serial #: 700B1124

Page 1

D A T A R E P O R T

Run Date 06/08
Stop Date 12/31
Run Time 1 09:00
Stop Time1 99:00
Run Time 2 99:00
Stop Time 2 99:00
R/S 01
Memory 4778.0

LVL 64.1
Time 0024:45:40
SEL 113.6
Lmin 38.5
Lmax 85.0
Lpk 101.5
L10 68.5
L33 62.5
L50 54.0
L90 43.0
OVLd 00
RMS Exc 0028
Pk Exc 0000
Dose 0.8
Proj 0.2

Crit 90.0
Thld 32.0
Exch 3
RMS Thld 80.0
Pk Thld 140.0
Hyst 0

Excd 1
Intv 1
Dur 01:00
Auto-Stop 0
LDL 0
Ln 1

Hist 0
Save Pk 0
Per 60.0

Detc SLOW
Wght A
Pk Unwgt 0
Cal 17.0

File Name: PMONTB
 Description: Piedmont Noise Element
 Location B: Moraga Avenue
 22 ft n/o curb, b/w Ramona & Monticello
 Report Date: 06-09-1994 Time: 10:31:40 Engr:

Page 2

E X C E E D A N C E	R E P O R T									
Cnt	Leq	SEL	Lmax	Lpk	Date	Time	Dur	Pk	Ov	
1	82.0	85.5	83.0	96.5	8 JUN	9:40:22	0:02	0	0	
2	81.0	82.0	81.0	92.5	8 JUN	9:46:43	0:01	0	0	
3	80.5	78.5	81.0	92.0	8 JUN	9:57:39	0:00	0	0	
4	81.5	83.5	82.0	95.5	8 JUN	10:07:44	0:01	0	0	
5	82.0	85.5	83.0	94.5	8 JUN	10:16:54	0:02	0	0	
6	80.5	80.5	81.0	93.0	8 JUN	10:38:05	0:01	0	0	
7	82.0	85.5	83.0	95.5	8 JUN	11:21:00	0:02	0	0	
8	83.0	91.5	84.5	96.0	8 JUN	12:15:28	0:07	0	0	
9	81.0	83.0	81.5	94.0	8 JUN	13:25:19	0:01	0	0	
10	82.0	85.5	83.0	95.5	8 JUN	15:21:42	0:02	0	0	
11	80.5	78.5	80.5	92.0	8 JUN	16:08:25	0:00	0	0	
12	81.0	82.5	81.0	94.0	8 JUN	16:14:30	0:01	0	0	
13	81.0	83.0	81.5	93.5	8 JUN	16:31:50	0:01	0	0	
14	80.5	80.0	80.5	92.0	8 JUN	16:36:12	0:00	0	0	
15	82.0	86.0	83.5	95.5	8 JUN	16:45:24	0:02	0	0	
16	83.0	87.5	84.5	97.5	8 JUN	18:01:08	0:02	0	0	
17	82.0	85.5	83.0	95.5	8 JUN	18:28:23	0:02	0	0	
18	81.0	82.0	81.0	93.0	8 JUN	19:04:24	0:01	0	0	
19	80.5	71.5	80.5	90.0	8 JUN	22:12:35	0:00	0	0	
20	83.5	90.5	85.0	95.5	8 JUN	22:12:35	0:05	0	0	
21	82.0	85.5	83.0	95.5	9 JUN	6:08:52	0:02	0	0	
22	82.0	86.0	83.0	96.0	9 JUN	6:46:38	0:02	0	0	
23	80.5	71.5	80.5	90.5	9 JUN	7:47:11	0:00	0	0	
24	81.0	83.0	81.5	94.5	9 JUN	7:54:18	0:01	0	0	
25	80.5	80.0	80.5	91.5	9 JUN	8:14:26	0:00	0	0	
26	81.0	81.5	81.5	94.5	9 JUN	8:22:01	0:01	0	0	
27	81.5	82.5	82.0	94.5	9 JUN	8:37:40	0:01	0	0	
28	81.0	81.0	81.0	94.0	9 JUN	8:50:10	0:01	0	0	

File Name: PMONTB
 Description: Piedmont Noise Element
 Location B: Moraga Avenue
 22 ft n/o curb, b/w Ramona & Monticello
 Report Date: 06-09-1994 Time: 10:31:40 Engr:

Page 3

I N T E R V A L			R E P O R T		Lmax	L10	L33	L50	L90	Lmin	Ex	Ov
Cnt	Date	Time	Dur	Leq								
1	8 JUN	9:00	1:00	66.0	83.0	69.5	66.0	62.5	48.5	40.5	3	0
2	8 JUN	10:00	1:00	66.0	83.0	69.5	65.5	62.0	47.5	39.5	3	0
3	8 JUN	11:00	1:00	65.5	83.0	69.0	65.5	62.0	45.0	38.5	1	0
4	8 JUN	12:00	1:00	66.0	84.5	69.5	65.5	62.0	46.5	39.5	1	0
5	8 JUN	13:00	1:00	65.0	81.5	69.0	65.0	61.0	45.0	40.0	1	0
6	8 JUN	14:00	1:00	65.5	80.0	69.5	65.5	62.0	47.5	42.0	0	0
7	8 JUN	15:00	1:00	65.5	83.0	69.0	66.0	63.0	49.5	41.5	1	0
8	8 JUN	16:00	1:00	66.5	83.5	70.0	66.5	64.0	49.5	42.0	5	0
9	8 JUN	17:00	1:00	67.0	78.5	70.5	67.5	65.5	50.5	41.5	0	0
10	8 JUN	18:00	1:00	66.0	84.5	70.0	66.5	63.0	46.5	41.0	2	0
11	8 JUN	19:00	1:00	65.0	81.0	69.0	65.0	60.5	45.5	40.0	1	0
12	8 JUN	20:00	1:00	62.5	74.5	67.5	62.0	55.5	44.5	41.0	0	0
13	8 JUN	21:00	1:00	61.5	75.0	66.5	60.5	53.0	45.0	43.0	0	0
14	8 JUN	22:00	1:00	62.0	85.0	65.5	55.5	49.0	44.0	43.0	2	0
15	8 JUN	23:00	1:00	57.0	77.5	61.5	47.0	45.0	43.5	42.0	0	0
16	9 JUN	0:00	1:00	52.5	73.5	48.5	44.5	43.5	42.0	40.0	0	0
17	9 JUN	1:00	1:00	48.5	68.5	46.0	45.0	45.0	42.0	40.0	0	0
18	9 JUN	2:00	1:00	49.0	70.5	44.5	42.5	42.0	41.0	39.5	0	0
19	9 JUN	3:00	1:00	50.0	67.5	54.0	47.0	42.5	41.0	39.5	0	0
20	9 JUN	4:00	1:00	48.0	72.0	45.5	44.0	43.0	40.0	39.0	0	0
21	9 JUN	5:00	1:00	55.5	78.0	54.5	48.0	47.0	44.0	42.5	0	0
22	9 JUN	6:00	1:00	61.0	83.0	64.0	52.5	49.5	47.5	46.5	2	0
23	9 JUN	7:00	1:00	65.5	81.5	69.0	65.0	60.5	48.5	45.0	2	0
24	9 JUN	8:00	1:00	67.0	82.0	70.5	67.5	65.5	51.5	44.5	4	0

I N T E R V A L					R E P O R T							
Cnt	Date	Time	Dur	Leq	Lmax	L10	L33	L50	L90	Lmin	Ex	Ov
25	9 JUN	9:00	0:45	66.0	79.0	70.0	66.0	62.5	47.5	42.0	0	0

Piedmont Noise Element
Location B: Moraga Avenue
22 ft n/o curb, b/w Ramona & Monticello

06-09-1994
10:31:40
PMONTB

Date	Start Time	Leq
8 JUN	9:00:01	66.0
8 JUN	10:00:01	66.0
8 JUN	11:00:01	65.5
8 JUN	12:00:01	66.0
8 JUN	13:00:01	65.0
8 JUN	14:00:01	65.5
8 JUN	15:00:01	65.5
8 JUN	16:00:01	66.5
8 JUN	17:00:01	67.0
8 JUN	18:00:01	66.0
8 JUN	19:00:01	65.0
8 JUN	20:00:01	62.5
8 JUN	21:00:01	61.5
8 JUN	22:00:01	62.0
8 JUN	23:00:01	57.0
9 JUN	0:00:01	52.5
9 JUN	1:00:01	48.5
9 JUN	2:00:01	49.0
9 JUN	3:00:01	50.0
9 JUN	4:00:01	48.0
9 JUN	5:00:01	55.5
9 JUN	6:00:01	61.0
9 JUN	7:00:01	65.5
9 JUN	8:00:01	67.0

Ldn = 66.0

CNEL = 66.6

8 June 94

Location A - Plymouth Church

On sign, 30 ft from curb, N side of Oakland Ave
E of Monte Vista Ave & W of Olive Ave

→ Meter E

Location B - Moraga Ave

On tree, 22 ft from curb, N side of Moraga Ave
approx 150 ft W of kiosk (bus stop enclosure) at
Moraga Ave & Monticello Ave.

→ Meter F

ATTACHMENT B

ENVIRONMENTAL NOISE DATA SHEET

LOCATION C - 21 Highland Ave SHEET NO. 2 OF 6
Between Monaca Ave & Park Way (mid-way) SITE NO. C
- 25 ft. from curb at N. side, setback TECHNICIAN JCF
 DAY OF WEEK Wed DATE 3 June TIME 9:02 ^(am) pm DURATION 10:00
 INSTRUMENTATION Larson Davis - D

Major	NOISE SOURCE	Minor
	Trucks	1
	Buses	1
	Motorcycles	
	Cars	44 + many - near constant metered
	Emergency vehicles	from light at Monaca Ave
	Jet aircraft	
	Gen. aviation	
	Rail trains	
	Dist. traffic	
	Construction	Faint / intermittent
	Machinery	train
	Industrial	
	Music	
	Birds	
	Wind in vegetation	
	Barking dogs	
	Children playing	
	Other	

SKY CONDITIONS clear/sunny
 TEMPERATURE 70 RH
 WIND LT S 1/2 E

COMMENTS:

Decile Values

$L_{max} = 80.0$ $L_{10} = 66.5$
 $L_{min} = 45.5$ $L_{10-30} = 64.0$
 $L_{50} = 62.0$
 $L_{90} = 50.0$
 $L_{eq} =$
 $L_{eq} (5 min) =$
 $L_{eq} (10 min) = 64.6$
 $L_{eq} (15 min) =$

- Fairly constant vehicular traffic -
 est. equal volume each direction
 - Excessive walking - 2 occasions -
 across street + 3 homes

ENVIRONMENTAL NOISE DATA SHEET

LOCATION D - Magnolia Ave between Bonita Ave SHEET NO. 3 of 6
and Hillside Ave. - SITE NO. D
S side of street - 12 ft from curb TECHNICIAN JCF
 DAY OF WEEK Wed DATE 8 Jun TIME 9:23 ^(am) pm DURATION 10:00
 INSTRUMENTATION Lutron Davis - D

Major NOISE SOURCE Minor
Trucks 1
Buses -
Motorcycles
25 mph Cars HHH HHH HHH HHH right turn
Emergency vehicles (see combr. - deeper)
Jet aircraft - high overcast - 50.0
Gen. aviation
Rail trains
Dist. traffic
Construction 63 dB backing deeper - 1 minute
Machinery - background swimming pool
Industrial
Music
X Birds constant background
Wind in vegetation
Barking dogs
Children playing
Other

SKY CONDITIONS clear/sunny
 TEMPERATURE 72 RH e
 WIND calm - LT 5 kts
 COMMENTS:

Decile Values
 $L_{min} = 44.0$ $L_{10} = 62.0$
 $L_{max} = 68.5$ $L_{10} = 57.0$
 $L_{50} = 52.5$
 $L_{90} = 47.5$
 $L_{eq} (5 min) =$
 $L_{eq} (10 min) = 57.7 dB$
 $L_{eq} (15 min) =$

- high schoolers walking by - conversing
 - bicyclers - conversing
 - instant coach - swimming

ENVIRONMENTAL NOISE DATA SHEET

LOCATION E - 1516 Grand Ave - SHEET NO. 4 of 6
between Oakland Ave & Cambridge Ave. SITE NO. E
SE side of street - 15 ft from curb TECHNICIAN JCF
 DAY OF WEEK Wed DATE 8 June TIME 9:41 ^{am} ~~pm~~ DURATION 10'0
 INSTRUMENTATION Larson Davis D

Major	NOISE SOURCE	Minor
	Trucks	
-	Buses <u>Dakland Ave 57db-</u>	
	Motorcycles	
	Cars <u>60db typical N5</u>	
	Emergency vehicles	
	Jet aircraft	
	Gen. aviation	
	Rail trains	
	Dist. traffic	
	Construction	
	Machinery	
	Industrial	
	Music	
	Birds	
	Wind in vegetation	
	Barking dogs	
	Children playing	
	Other	

SKY CONDITIONS clear, sunny

TEMPERATURE 75° F RH

WIND calm

COMMENTS:

Decile Values

$L_{max} = 80.0$ $L_{10} = 68.0$

$L_{min} = 47.0$ $L_{10/35} = 62.0$

$L_{50} = 59.5$

$L_{90} = 51.0$

~~L_{99}~~

~~$L_{eq} (5 min)$~~

$L_{eq} (10 min) = 64.9$

~~$L_{eq} (15 min)$~~

- 4 lanes (2 in way) - moderate traffic
 along Grand Ave - est 35 mph

- NW homes set back 15 ft from curb

- SE homes set back 35 ft - uphill

ENVIRONMENTAL NOISE DATA SHEET

LOCATION F - 211 Linda Ave SHEET NO. 50F 6
between Kingston Ave and Lake Ave. SITE NO. F
20 ft from curb - W side TECHNICIAN JEF
 DAY OF WEEK Wed DATE 8 Jun TIME 9:59 ^{am}/_{pm} DURATION 10:30
 INSTRUMENTATION Lawson Davis D

Major	NOISE SOURCE	Minor
	Trucks	
-	Buses	1
	Motorcycles	
	Cars	light to moderate
	Emergency vehicles	
	Jet aircraft	1
	Gen. aviation	
	Rail trains	
	Dist. traffic	
	Construction	
	Machinery	
	Industrial	
	Music	
	Birds	
	Wind in vegetation	
	Barking dogs	
	Children playing	
	Other	

SKY CONDITIONS clear
 TEMPERATURE 75°F RH
 WIND
 COMMENTS:

	Decile Values
$L_{min} = 41.5$	$L_{10} = 62.0$
$L_{max} = 76.0$	$L_{10-33} = 56.5$
	$L_{50} = 53.0$
	$L_{90} = 45.5$
	$L_{99} =$
	$L_{eq} (5 min) =$
	$L_{eq} (10 min) = 59.2$
	$L_{eq} (15 min) =$

typical car - 60-65 dB -
 250 30 mph

ENVIRONMENTAL NOISE DATA SHEET

LOCATION G - 1811 Trestle Eden Rd. SHEET NO. 6-DF6
between Park Drive & Cavenagh Ct. SITE NO. G
20 ft from curb - W side of street TECHNICIAN JCF
 DAY OF WEEK Wed DATE 8 Jun 94 TIME 10:28 ^(am) _{pm} DURATION _____
 INSTRUMENTATION _____

Major	NOISE SOURCE	Minor
_____	Trucks	_____
_____	Buses	_____
_____	Motorcycles	_____
_____	Cars <u> </u>	<u>ext 30 mph</u>
_____	Emergency vehicles	_____
_____	Jet aircraft	_____
_____	Gen. aviation <u>1</u>	_____
_____	Rail trains	_____
_____	Dist. traffic	_____
_____	Construction <u>Churning, hauling, sawing</u>	_____
_____	Machinery <u>5 homes away ea' directed</u>	_____
_____	Industrial	_____
_____	Music	_____
_____	Birds	_____
_____	Wind in vegetation	_____
_____	Barking dogs	_____
_____	Children playing	_____
_____	Other	_____

SKY CONDITIONS calm, clear
 TEMPERATURE 80 RH _____
 WIND calm
 COMMENTS:

L_{max} = 69.0
L_{min} = 34.5

Decile Values	
<u>L₁₀</u>	<u>53.5</u>
<u>L₁₀₋₅₃</u>	<u>49.0</u>
<u>L₅₀</u>	<u>45.5</u>
<u>L₉₀</u>	<u>40.0</u>
<u>L₉₉</u>	<u>37.0</u>
<u>L_{eq} (5 min)</u>	_____
<u>L_{eq} (10 min)</u>	<u>51.6</u>
<u>L_{eq} (15 min)</u>	_____

- calm, quiet neighborhood

SECTION K

COMMUNITY DESIGN BACKGROUND INFORMATION

COMMUNITY DESIGN BACKGROUND INFORMATION

HISTORIC PRESERVATION

Introduction

At a time when building techniques and styles are becoming increasingly uniform across our country, people are beginning to place value on those man-made elements of the environment that have special character and that provide tangible links with the past. Citizens of the City of Piedmont also are realizing that the historical and cultural foundations of the community should be preserved to give a sense of orientation and identity. Added to this concern is the growing awareness that the conservation, restoration or rehabilitation of older buildings and neighborhoods can also mean savings in energy, time and raw materials.

Evidence of our past can expand our understanding of where we have been and who we are. Older building and sites speak of the people who lived in them at the time they were built. They are living history and enable us to chart paths to the future. The styles, materials and tastes of past inhabitants continue to supply alternatives to present choices and challenge us to improve on both.

Historic Structures in Piedmont

Piedmont has a unique history and character. The City of Piedmont is rich with historic sites, homes and cultural resources linked with past and present citizens. A few examples of these are provided below:

1. The first dairy farm, Maxwellton Brae, which is now site of the City's Corporation Yard.
2. The Alexander Home on Sea View Avenue. Wallace Alexander formed the Piedmont Council, Boy Scouts of America and the Piedmont Community Church.
3. The Havens House designed by Bernard Maybeck.
4. The neo-Tudor style home at 320 El Cerrito Avenue designed by John Hudson Thomas.
5. The Jurgensen House on Dormidera Avenue designed by Louis Christian Mullgardt, designer of the De Young Museum in San Francisco.
6. Four home designed by Julia Morgan: the Starr House at 216 Hampton Road, the Reed House at Crocker and Farragut Avenues, and two other homes on Farragut Avenue.

7. The Dawson Home on Sotelo Avenue and the residence at 76 Sea View Avenue, both designed by Albert Farr.
8. The Sweetland Manor at 11 Glen Alpine Road, the largest private dwelling in the East Bay.
9. The home at 250 Scenic Avenue, designed by the Greene Brothers.
10. The simplified Stick-Eastlake style early-Victorian home at 342 Bonita Avenue (listed on the National Register of Historic Places).
11. The Christian Science Church on Magnolia Avenue (listed on the National Register of Historic Places).
12. The stately Jacobean-style Uhl house at 304 Hillside Avenue.
13. The Gorril House at 337 Hillside Avenue, an early mansion designed by A. Page Brown.

Familiar landmarks establish a sense of permanence and well-being among a city's citizens. The National Register defines a historic resource as a district, site, building, structure or object significant in American history, architecture, archaeology and culture. It may be of value to the nation as a whole or important only the community in which it is located.

The re-use of the built environment has become not only desirable, but necessary. Preservation, in this context, can evolve as a viable approach to revitalizing Piedmont while maintaining its character. There are benefits that can accrue to the community and to the private owners of the historic resources within the city limits.

Historic Preservation Planning

The Historic Preservation Element is an optional element for general plans (California Government Code, Section 65303-j). Legislation enabling specific Historic Preservation elements gives communities such as Piedmont the opportunity to focus appropriate attention on the protection of cultural resources.

Historic preservation can provide Piedmont with cultural, economical, social and planning benefits. If Piedmont wants this preservation, the remainder of this section is devoted to show how these benefits can be obtained by designating and preserving Piedmont's historic homes and sites. Now is the time to begin planning for this effort.

Development of A Historic Preservation Element

The Historic Preservation element should contain only an outline of a full preservation program. Where possible, it should be specific. The element should be a restatement of public policy suggesting programs that merit study. These recommendations should include:

1. The historic resources of the community should be fully identified;
2. A preservation ordinance should be adopted creating a Preservation Board equipped with appropriate authority and charged with program initiation;
3. Additional programs should be sought beyond the ordinance; and
4. The responsibility of completing the task rests with the community.

The Preliminary Survey and Inventory

An official inventory of historic resources can define the historic character of a community or of a particular area and can provide the basis for making sound judgments in community planning. An analysis of the inventory in a preservation plan can help Piedmont identify the historic, aesthetic and visual relationships that unify and define particular areas.

Historic resources can be divided into five broad categories: building, site, object, structure and district. Each of these should be included in the survey. The goal of the survey should be to compile a list of the historic resources that demonstrate the cultural legacy Piedmont has. The survey findings should present an effective case for preservation planning and be illustrated to give visual reinforcement to the message that Piedmont has many cultural resources to preserve. Categories of historic resources to be included are: architectural history; development history and industrial archaeology; historic districts; natural features; and paleontological sites and archaeological sites.

The survey and inventory can be accomplished by paid consultants and/or City personnel and/or volunteers. Piedmont has numerous citizens who are experienced in this area of historic resource identification. They could be utilized in the conduct of such a survey and/or train other volunteers.

The Ordinance and the Preservation Board

A preservation ordinance should be initiated. A citizens group should be appointed to administer the ordinance, direct the comprehensive survey, and develop support programs for historic preservation within Piedmont. The initial task is to determine the rules for selecting and regulating landmarks and landmark areas identified through the survey work.

Assistance

Limited survey and planning funding may be available from a number of sources, the most important being the State Office of Historic Preservation and The National Trust for Historic Preservation. The National Trust and the State Office of Historic Preservation should be contacted directly for information. Governmental as well as private funding sources should be investigated.

Tax Breaks

There is a twenty percent rehabilitation investment credit for repair of designated historic structures. A ten percent rehabilitation investment credit is available for historic structures that are not designated by the State Office of Historic Preservation or the National Trust for Historic Preservation (Source: IRS, March 8, 1994).

DESIGN REVIEW

Given that Piedmont is a built-up community with relatively few open lots available for new construction, and given that most of this building was constructed in the early to mid-1900s, some consideration must be given to architectural compatibility both in new construction and in remodeling which affects the exterior of an existing structure. In Piedmont, the City Council has delegated this design review function to the Planning Commission and, in the case of minor projects, to the City staff.

Operational Concerns

In the past, questions have been raised as to the necessity or operation of the design review function in Piedmont (refer to the Zion study prepared in 1980). The basic conflict appears to be between individual rights and community aesthetics. In addition, questions have been raised as to the extent of qualification requirements for those appointed to hold hearings and make decisions on design reviews. Historically, and during the current period, there have not been significant complaints from residents as to the decisions of any of the bodies involved in the decision-making process.

Other Considerations

While design review only comes under consideration when an activity is about to begin, is there a need for some form of City monitoring of structures which need repair, maintenance and/or improvement and are not receiving needed upkeep? Buildings which are allowed to become deteriorated detract from the general character and aesthetics of the City.

SIGN REGULATIONS

Commercial and Political Signs

Piedmont ordinances currently define size, placement and illumination of commercial signs. Political signs have been controlled as to size and placement. A recent Supreme Court decision allows jurisdictions to prohibit the placement of political signs on public property. In September 1984, the City Council adopted an ordinance to prohibit political signs on public property and right-of-way. If there is a problem concerning commercial and political signage, it would be in the area of aesthetics; in other words, what is pleasing to one person may be displeasing to another person. Possibly, more consideration should be given to cohesiveness and overall design balance of commercial and political signs.

Informative Signs

These are defined as signs not required by law or for safety, nor as commercial identification, but those that give directions, information or instruction. Each area that uses such signs has used its own format and design. For example, the informative signs for Piedmont Park differ from those of directional signs to churches, schools, etc., which differ from the signs in the “par-course”. For the most part, those erected by the City are white on green. Designing signs that are aesthetically pleasing and graphically consistent is a matter that calls for closer attention.

Traffic Flow Signs

Since shape, size and color of these signs are primarily prescribed by law and custom, very little can be done in the field of standardization. Studies must be made for redundancy of signs, standardization of mounting, and unnecessary concentration of signs.

Street Signs

The primary considerations in street signage are readability and safety. Piedmont currently uses a white-on-green, light-reflective material which is easily readable after dark. The street signs are directional in reference to ascending house numbers and, therefore, are as informative as a street sign can be. Drivers can readily obtain the information they need without endangering traffic. The only possible change in street signage would be to change the color of the street signs without losing the readability factor.

House Signs

There is in Piedmont, as in all communities, a tremendous problem in finding house numbers after dark. Consideration should be given to some method of requiring all buildings to prominently display their assigned street numbers. This will promote traffic flow, lessen the hazards involved in a driver’s hunting for a house number, and make commercial aspects concerning private homes more efficient. There is an emergency safety factor to be considered too, because emergency units lose valuable time searching for houses.

SUBDIVISION REGULATIONS

Background

Existing subdivision standards appear reasonable and adequate. All subdivision requests must be approved by the City Council after review by the Planning Commission. Even though a subdivision may qualify in all respects as measured by the various tests given in the statutes, the City Council may deny the request if it finds that the “disadvantages to the public outweigh the benefits.” Such review and approvals or denials have caused considerable difficulty and controversy for the Council in the past and are likely to continue to do so in the future. With a view toward minimizing such controversy, additional criteria or “yardsticks” for the Council to apply in judging the prudence of future subdivision requests are summarized below. In addition, individual property owners’ rights must also be considered in arriving at decisions on future subdivision requests.

Alternatives in Reviewing Subdivision Requests

1. Status quo (except to amend language and reflect State Map Act);
2. Discourage further subdivisions by taking “hard line” attitude at City Council review in terms of advantages vs. disadvantages to public benefit;
3. Encourage further subdivisions which adequately meet all tests including new “yardsticks” as indicated below; and
4. In all decisions, insure that individual property owner’s rights are fully considered.

Proposed Additional Yardsticks With Regard to Subdivision Review

It is the primary intention of the General Plan that each subdivision be designed and implemented in a manner that fully recognizes the character and aesthetics fundamental to the Piedmont community, while at the same time observing the rights of property owners.

1. Lot size and density shall be made compatible with the adjacent neighborhood so that a general continuity is maintained;
2. Every effort should be made by the developer to place housing and infrastructure on the lot so that a minimum disturbance to existing trees is obtained and passive solar activity is considered;
3. All utilities should be placed underground;
4. Private streets must be laid out and implemented to insure proper fire and police access; and
5. Wherever possible, maximum private open space should be provided by the development.

Preservation, Maintenance and Replacement of Street Trees

Preservation

An old tree is irreplaceable; it has value that cannot be recaptured with new planting. Preservation is possible through the following:

- Not allowing trees to be removed, except for important reasons, such as:
 - (a) the tree is dead; and/or
 - (b) the tree represents a safety hazard.
- Educating the citizens as to the value of street trees; and
- Establishing a Heritage Tree Program which insures against removal of trees (this program can apply to both public and private land).

Maintenance

The finest tree cannot survive neglect. Although a tree is planted on City property, it must, for practical reasons, be dependent upon care from the citizen, with occasional assistance from City employees. The care needed is as follows:

- Trimming. This is done by the City (information follows concerning the City's policy). However, the citizen may request permission to have a tree trimmed using the City's tree trimming guide;
- Watering. This is the responsibility of the citizen and must be done thoroughly, as trees do not thrive without deep watering (a point to emphasize in educating citizens). The Public Works Department does try to elicit cooperation by giving citizens written instructions on caring for a new tree at the time of planting;
- Spraying. This a controversial subject due to the toxicity of most sprays. If spraying were to be done, the City should do it; and
- Staking. This is done by the City to prevent wind damage and vandalism to young trees.

Replacement

Trees do need to be replaced if they have been deliberately removed or destroyed by nature, and the following are options:

- A citizen wishing to plant a City street tree may pay for a 15 gallon tree (approximately \$125). The City would do the actual planting.
- The City's Park Commission could recommend an area in need of a tree, and the City would plant it.
- Piedmont has a successful Tree Memorial Fund, through which many trees have been donated as a memorial or honorarium. Traditionally, these trees have been planted in Piedmont's parks, but with cooperation from the Park Commission, a list of possible locations for street trees could be made. Donors to this fund pay \$125 to the Piedmont Beautification Foundation, a tax deductible organization, then a tree is selected, with the approval of the Park Commission, and planted in a proper location.

Existing City Ordinances Related to Street Trees

There are five City ordinances related to street trees and their removal. They are under Section 5 of the City Code and are as follows:

1. 5-1 Prohibitions. Unlawful to injure or destroy any street tree, punishable by a fine.
2. 5-2 Street Trees, Property of City. Street trees are the property of the City. The Park Commission has exclusive authority to approve removal of a street tree, with possible conditions.
3. 5-3 Removal of Dead or Hazardous Trees. May be done with agreement of administrator, director and supervisor.
4. 5-4 Removal of Live Trees. Explains steps to be taken in response to the citizen's request for live tree removal.
5. 5-5 Appeal of Park Commission's Decision. If a citizen is not in accord with the decision of the Park Commission, he or she may appeal directly to the City Council.

Existing City Policies Related to Street Trees

1. The City has a tree trimming policy allowing approximately 900 trees to be trimmed each year, rotating through different neighborhoods. Each year, the

trimming is put out to bid via advertising through a local publication. Those firms who answer the bid are interviewed, shown the Tree Trimming Guide and the proposed trees to be trimmed, and then the lowest bidder is chosen from the most qualified. A City employee attends the trimming. In 1994, the price per tree was approximately \$44, with the total contract amounting to \$36,472.

2. The State of California, as well as PG&E's own operating procedures, requires trimming of trees that might interfere with the wires. A City employee observes this process to insure proper trimming.

Summary

A city with trees has a sense of order, and through order, there is beauty. Unfortunately, Proposition 13 has forced many cities to abandon tree programs. As an example of shortsightedness, in the 1950s, Oakland attempted to solve tree difficulties by removing trees each time a problem arose; subsequently, street after street was denuded. The removal attitude has since been reversed, resulting in an aggressive tree planting program with a goal of planting approximately 1,200 trees a year. Cities have been innovative in obtaining funds for replacement and maintenance, using neighborhood tree sponsorships, government grants and special assessments. Some cities even establish tree foundations. Piedmont has a valuable heritage of street trees, with the majority of the residents strongly in favor of maintaining, preserving and replacing trees. Many of Piedmont's streets have incomplete rows of trees, lacking continuity and an aesthetically-balanced appearance. A strong policy of "save the trees" does exist in Piedmont; however, a citizen's request for tree removal is sometimes granted by the City.

CITY CLEANLINESS

Street Sweeping

The City owns a Vac-All street sweeping machine for cleaning streets and picking up leaves. The machine sweeps streets every day for five months during leaf-fall season (September through January). During the remaining seven months, streets are swept on an "as-needed" basis.

Other Areas of Concern

The purpose of this section is to identify various existing City programs on cleanliness, to determine if needs are being met by these programs, and to outline areas that need further consideration.

Leaf Disposal

At one point, there was a regular program for the City to pick up leaves and small prunings contained in plastic bags and set out on the curb. There appears to be a continued need for this service, both seasonal and nonseasonal. It was reported that, even in the summer and winter months, strong winds dislodge leaves and small branches. In addition, maintaining a property's well-kept and trimmed appearance requires disposal of small yard debris.

Tree Pruning and Disposal

The City has a tree pruning program. All City street trees are pruned on a five-year cycle. The tree pruning is done by an outside contractor, and the job is competitively bid each year. The condition of the street trees, in fact the existence of street trees, contributes greatly to the visual impact of the City.

Storm Drains

Care and maintenance is needed for the surface appearance of the drains. Leaves stay on top and clog the drains. In addition, there is a visual impact as the leaves and debris are carried to the drain center. City maintenance crews remove leaves from storm drains, keeping the drains free and clear of debris, especially during the rainy season.

Christmas Tree Disposal

The programs now in effect by the Boy Scouts and Waste Management, Inc. appear to be adequate. No obvious problems have been presented. In addition to the tree pick-up program by Oakland Scavenger, the Davis Street Transfer Station accepts Christmas trees for recycling.

Garbage Disposal

While Piedmont residents are not required to subscribe to Waste Management, Inc., any situation which may present a health or visual hazard should be reported to the Public Works Department for resolution.

Recycling

Piedmont has contracted with a recycling service to provide weekly collection service for source-separated recyclables from Piedmont residences. Since the City is almost exclusively residential, the impact of this program on waste diversion is substantial. A great variety of materials are accepted in this program, including newspaper, old corrugated containers (OCC), high-grade ledger paper, glass containers, aluminum cans, tin-plated steel cans, and PET and HDPE containers. Voluntary participation in the program exceeds 80%.

Animal Control

While there is a leash law in the City for pets, there are designated dog runs in areas of Piedmont Park, Dracena Park and Linda Park. "Pooper scooper" dispensers have been installed in these parks and are available at City Hall to encourage owners to pick up after their pets in order to maintain cleanliness in the City. Pests such as rodents and small wild animals seem to be a problem, particularly in the more open areas of the City. The animal control person for the City responds to every complaint, but there may be need for additional restrictions and enforcement.

Planter/Parking Strips

These are the areas located between the curb and the sidewalk, generally on City Property. They often are undermaintained due to uncertainty on the part of the adjacent property owner as to responsibility for their maintenance. While the responsibility of the property owner, City approval must be obtained prior to planting trees.

Solutions to Problems

Parks are handled by the Public Works maintenance staff. Major trafficways are covered under the topics already listed. The citizens of Piedmont have taken an active role in the upkeep and maintenance of the parks. A “Friends of the Parks” program has been established that helps with special projects or clean-up days in the parks. The group is made up of citizen volunteers and is supervised by City staff. The Park Commission, in cooperation with the Piedmont Beautification Foundation and the Piedmont Garden Club, is very active in the renovation of the parks and median strips, “Adopt-A-Park” programs and trash pick-up days. The Capital Improvement Program (CIP) has also contributed significantly to many on-going improvement projects that occur annually in the parks.

SECTION L

PUBLIC UTILITIES AND FACILITIES BACKGROUND INFORMATION

PUBLIC UTILITIES AND FACILITIES BACKGROUND INFORMATION

WATER SUPPLY AND DISTRIBUTION

The early settlers obtained water from individual wells. Excessive fire risk led to the organization of private water companies which constructed three small reservoirs fed by springs, which are still in evidence to the northeast of the City. These were supplanted by regional service of the East Bay Water Company. By 1923 it became evident that the growth of the region required a more dependable source and Piedmont joined with eight neighboring cities in forming the East Bay Municipal Utility District (EBMUD) with the objective of obtaining an adequate public water supply from the Mokelumne River. The distribution system was acquired from the East Bay Water Company and by 1929 the large Pardee Storage Dam in the Sierra Nevada and the 90-mile conveyance aqueduct had been completed. These facilities, together with subsequent improvements, furnish EBMUD with an ample supply of high quality water.

EBMUD owns and maintains the water distribution system in the City of Piedmont. The City of Piedmont is supplied through a distribution system consisting of 6-inch to 8-inch diameter steel pipes which are underground and generally in the street right-of-ways. The primary reservoir is the one at the top of Blair Avenue, referred to as Piedmont Reservoir (60 acre-feet capacity). The other reservoir located on McAndrews in Oakland and is referred to as the Dingee Reservoir (30 acre-feet capacity).

The Insurance Services Office has given Piedmont their highest Class I rating for the water supply component of the rating scale. The water supply system, although adequate for fire suppression purposes in most of the City, has specific areas where substandard volumes are available. To merit the Class I status, the ideal volume standard of 1,500 gallons per minute is available at the bulk of the City's approximately 225 hydrants. The Capital Improvement Program (CIP) funds fire hydrant replacements and upgrades each fiscal year. The EBMUD has identified those substandard distribution pipes and is developing a plan to improve the water delivery volumes as well as meliorate seismic integrity of the aging system.

SEWAGE COLLECTION AND TREATMENT

The City of Piedmont owns and maintains the sewage collection system. The treatment is contracted with EBMUD. The regional treatment plant is located in West Oakland with ultimate disposal to San Francisco Bay. The sewage treatment plant capacity has been designed and constructed for population and employment growth well above current levels. Design capacity is 41 percent greater than the existing dry weather flow. Such excess capacity was developed to handle increased flow caused during the food canning period and during the rainy season.

The City of Piedmont inherited the sewage collection system from the old Piedmont Sanitary District. There are 47 miles of collection system, ranging in size from 6-inch to 15-inch diameter pipe. The installation of the collection system began in the early 1900's and was completed by 1941. The City of Piedmont is in a 20-year program for replacement of pipes within the network.

A proof of the necessity for replacement is the amount of excess inflow and infiltration that occurs. Exhibit L-1, Areas of Excessive Inflow and Infiltrations, indicates the severity of these conditions throughout the City. This information was generated through studies in which the City of Piedmont participated with surrounding jurisdictions. The purpose was to examine major problems in the sewage collection systems and develop methods of funding solutions. Some of the inflow comes from illegal direct connections of drain pipes to the sanitary sewer lines. This is estimated to represent 47 percent of the excess water that enters the sanitary sewer system. The remaining 53 percent of excess water comes from line cracks and open joints or infiltration. The study has indicated that renovation of as much as 25 percent of the system would not be cost-effective, meaning that replacement would be necessary. Renovation costs alone are estimated to be about \$2.5 million. The City Council has approved a sewer rate increase in order to begin building reserves to fund these capital improvements, as well as emergency repairs, maintenance and further studies in the multi-year program.

STORM SEWER SYSTEM

This system is owned and maintained by the City of Piedmont. Prior to the 1940's, the storm drain and the sanitary sewer systems were one. With completion of the large EBMUD treatment plant (near the San Francisco Bay Bridge), all cities serviced by this plant were required to separate the systems. Although this has been accomplished, in the City of Piedmont there are still some resident storm drains connected to the sanitary sewer system. Programs are now underway to identify these improper connections and have them disconnected.

The storm sewer system relies in numerous instances on natural drainage courses to connect various sections. Streets (curbs and gutters) also function as part of the drainage system. Because of this surface drainage and the runoff from individual lots, adequate erosion control measures are necessary to ensure soil stability and downstream water quality. Erosion control ordinances are required by the Regional Water Quality Board.

NATURAL GAS AND ELECTRICITY

Pacific Gas and Electric (PG&E) is the supplier of natural gas and electricity to the City of Piedmont under a franchise agreement with the City.

Household Natural Gas

The City is supplied through a loop network of underground lines, which are normally in the street right-of-way. The lines vary in size from 2-inches to 10-inches. Lines into individual homes are typically 3/4-inch, though some lines may be 1-1/2-inch, depending on the load demand of the individual residence or business. Under the franchise agreement, PG&E must supply the needs of the residents and businesses of the City.

AREAS OF EXCESSIVE INFLOW AND INFILTRATION

- I EXCESSIVE INFLOW
- II EXCESSIVE INFILTRATION
- III EXCESSIVE INFLOW AND INFILTRATION



Electricity

PG&E installs and maintains the transmission lines and the subsequent distribution lines throughout the City of Piedmont. Underground services installed prior to 1967 are owned and maintained by the customer. In some areas, undergrounding of the distribution lines has already occurred. If there should be a subdivision of five or more units, then the lines must be underground. Under the franchise agreement, PG&E must supply the needs of the residents and businesses of the City.

UNDERGROUND UTILITIES

The City Council may designate underground utility districts by resolution. The City Council may from time to time call public hearings to ascertain whether the public necessity, health, safety or welfare requires the removal of poles, overhead wires and associated overhead structures within designated areas of the City and the underground installation of wires and facilities for supplying electric, communication, or similar associated service. Exhibit L-2, Location of Underground Utilities, provides information on utilities.

STREET LIGHTING

Within the City of Piedmont, the majority of the street light standards are owned and maintained by PG&E. Under a contractual agreement, the City pays for this service. There are some areas within the City of Piedmont where the street light standards are owned by the City but maintained by PG&E under contract. While PG&E will provide the necessary street lights required due to residential expansion, it is not probable that they would provide the necessary street lights for new streets.

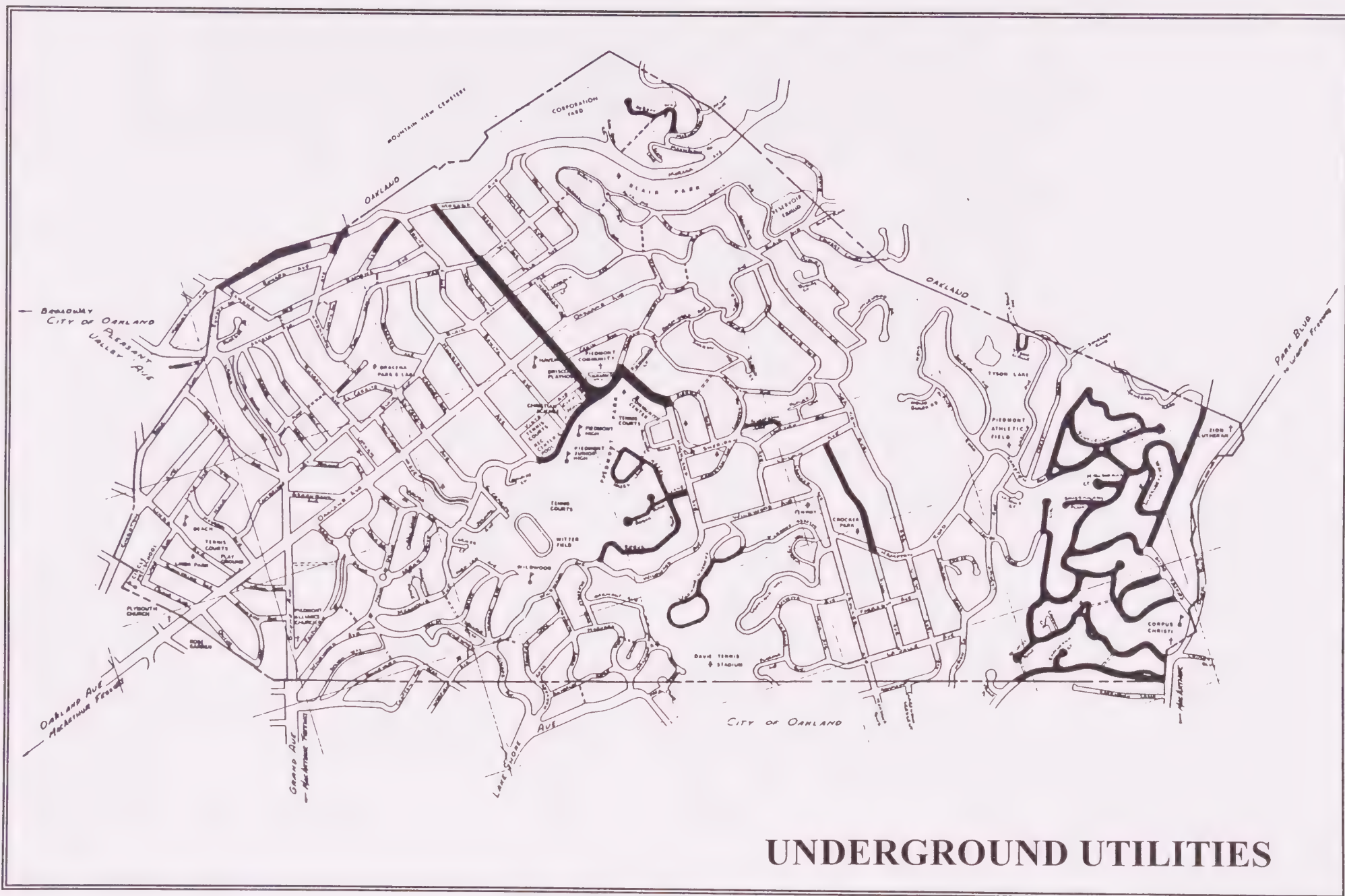
Maintenance of the street light standards involve changing the lamps and maintaining the fixtures PG&E is paid a fixed monthly amount based on the number of street lights for this service. Some delays in repairing and replacing lights have been experienced.

Public agencies within PG&E's boundaries have begun to realize that a savings is possible through purchasing and maintaining their street lights. On December 29, 1993, the City Council entered into a Joint Powers Agreement (JPA) with the Alameda County Street Light Acquisition Group (ACSLAG) for the purpose of studying the joint acquisition of all PG&E's street lights currently in place within the boundaries of each of the agencies and to equitably spread the costs of acquisition among the agencies.

A Preliminary Feasibility Report prepared in January 1994, indicated the City could realize a savings of \$53,667 per year if it were to purchase and maintain the lights.

SOLID WASTE MANAGEMENT

The City of Piedmont's solid waste management programs are divided into two general categories: regional; and municipal. The regional programs are carried out under the auspices of the Alameda County Waste Management Authority and include domestic and a small amount of commercial refuse collection and disposal. Municipal efforts include cleanup of street tree leaves, City property vegetation trimmings, recycling, and special debris pickups.



The City of Piedmont has prepared a Source Reduction and Recycling Element (SRRE) and a Household Hazardous Waste Element (HHWE) in accordance with statutory requirements of the State of California. Please refer to those documents for additional information.

APPENDIX A

ENVIRONMENTAL DOCUMENTATION

NEGATIVE DECLARATION

1. **Project Location:** City of Piedmont (Exhibit 1)
2. **Project Description:** Update of the General Plan including the revision of goals, policies, and implementation programs for the following elements: Land Use; Circulation; Open Space, Recreation and Conservation; Safety; Noise; Community Design; and Public Facilities and Utilities as well as the update of supporting background information related to the above elements.
3. **Name of Proponent:** City Of Piedmont
4. **Declaration: (Check One)**

☒ (a) The Initial Study shows that there is no substantial evidence that the project may have a significant effect on the environment, or

☐ (b) The Initial Study identified potentially significant effects but:

(1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed Negative Declaration is released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

(2) There is no substantial evidence before the agency that the project as revised may have a significant effect on the environment.
5. **Mitigation measures if any:** There are no mitigation measures proposed.
6. **Copy of Initial Study is attached.**

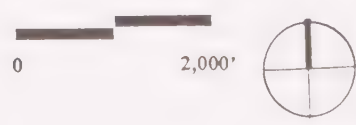
Date: January 12, 1996

Name: Kristin Johnson

Title: Planning Technician



Exhibit 1
CITY OF PIEDMONT & VICINITY



PROJECT DESCRIPTION

PROJECT LOCATION

The City of Piedmont is located in Alameda County. The City is approximately 1.8 square miles and is surrounded on all sides by the City of Oakland. It is located approximately 6 miles southeast of Berkeley, and approximately 12 miles northeast of San Francisco. Exhibit 1 provides the City's location and vicinity.

PROJECT CHARACTERISTICS

The proposed project consists of the update and reformat of the General Plan previously adopted by the City in 1984.

REQUIRED DISCRETIONARY ACTIONS

The following section describes discretionary actions that are required for project approval. For all actions, approval is granted by the lead agency, the City of Piedmont.

1. **Certification of the Negative Declaration.** Acceptance of an environmental document as having been prepared in compliance with the California Environmental Quality Act (CEQA), the State CEQA Guidelines, and certification that the data was considered in final decisions on the project.
2. **Adoption of the General Plan Update.** Adoption of the General Plan Update by the City of Piedmont.

LEAD AND RESPONSIBLE AGENCIES

The project sponsor and applicant is the City of Piedmont. In conformance with Sections 15052 and 15367 of the State CEQA Guidelines, the City of Piedmont has been designated as the "lead agency" which is defined as the "public agency which has the principal responsibility for carrying out or disapproving a project." The lead agency contact is:

City of Piedmont
Kristin Johnson
Planning Technician
120 Vista Avenue
Piedmont, CA 94611
(510) 420-3067

POSSIBLE RESPONSIBLE AGENCY

Responsible Agencies are public agencies other than the lead agency which have discretionary approval over the project. The following responsible/trustee may have discretionary approval over the Safety Element of the General Plan:

California Department of Conservation
Division of Mines and Geology
801 K Street, Mail Stop 1231
Sacramento, CA 95814-3531

INITIAL STUDY

BACKGROUND

1. **Name of Proponent:** City of Piedmont
2. **Address and Phone Number of Proponent:**

120 Vista Avenue
Piedmont, CA 94611
(510) 420-3050
3. **Date Checklist Prepared:** Revised January 12, 1996
4. **Lead Agency:** City of Piedmont
5. **Name of Proposed Project:** General Plan Update

INTRODUCTION

Based on issues defined in the Initial Study, a Negative Declaration has been prepared in accordance with the California Environmental Quality Act of 1970 (CEQA), as amended (Public Resources Code, Section 21000, et.seq.) and the State Guidelines for Implementation of the California Environmental Quality Act of 1970 as amended (California Administrative Code Section 15000, et. seq.). This Initial Study complies with the rules, regulations, and the procedures for implementation of the California Environmental Quality Act adopted by the City of Piedmont.

ENVIRONMENTAL ANALYSIS CHECKLIST¹

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
1. Earth. Will the proposal result in:			
a. Unstable earth conditions or in changes in geologic substructures?	_____	_____	<u>X</u>
b. Disruptions, displacements, compaction or over-covering of the soil?	_____	_____	<u>X</u>
c. Change in topography or ground surface relief features?	_____	_____	<u>X</u>
d. The destruction, covering or modification of any unique geologic or physical features?	_____	_____	<u>X</u>
e. Any increase in wind or water erosion of soils, either on or off the site?	_____	_____	<u>X</u>
f. Changes in deposition or erosion of beachsands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake?	_____	_____	<u>X</u>
g. Exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?	_____	_____	<u>X</u>

¹ Please note that the Environmental Analysis Checklist has been prepared consistent with the Environmental Checklist Form found in Appendix I of the CEQA Guidelines.

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
2. Air. Will the proposal result in:			
a. Substantial air emissions or deterioration of ambient air quality?	_____	_____	<u>X</u>
b. The creation of objectionable odors?	_____	_____	<u>X</u>
c. Alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally?	_____	_____	<u>X</u>
3. Water. Will the proposal result in:			
a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters?	_____	_____	<u>X</u>
b. Changes in absorption rates, drainage patterns or the rate and amount of surface water runoff?	_____	_____	<u>X</u>
c. Alterations to the course or flow of flood waters?	_____	_____	<u>X</u>
d. Change in the amount of surface water in any water body?	_____	_____	<u>X</u>
e. Discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity?	_____	_____	<u>X</u>
f. Alteration of the direction or rate of flow of ground waters?	_____	_____	<u>X</u>
g. Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations?	_____	_____	<u>X</u>

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
h. Substantial reduction in the amount of water otherwise available for public water supplies?	_____	_____	<u>X</u>
i. Exposure of people or property to water related hazards such as flooding or tidal waves?	_____	_____	<u>X</u>
4. Plant Life. Will the proposal result in:			
a. Change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants)?	_____	_____	<u>X</u>
b. Reduction of the numbers of any unique, rare or endangered species of plants?	_____	_____	<u>X</u>
c. Introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species?	_____	_____	<u>X</u>
d. Reduction in acreage of any agricultural crop?	_____	_____	<u>X</u>
5. Animal Life. Will the proposal result in:			
a. Change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects)?	_____	_____	<u>X</u>
b. Reduction of the numbers of any unique, rare or endangered species of animals?	_____	_____	<u>X</u>
c. Introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals?	_____	_____	<u>X</u>

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
d. Deterioration to existing fish or wildlife habitat?	_____	_____	<u>X</u>
6. Noise. Will the proposal result in:			
a. Increases in existing noise levels?	_____	_____	<u>X</u>
b. Exposure of people to severe noise levels?	_____	_____	<u>X</u>
7. Light or Glare. Will the proposal:			
a. Produce new light or glare?	_____	_____	<u>X</u>
8. Land Use. Will the proposal result in:			
a. Substantial alteration of the present or planned land use of an area?	_____	_____	<u>X</u>
9. Natural Resources. Will the proposal result in:			
a. Increase in the rate of use of any natural resources?	_____	_____	<u>X</u>
b. Substantial depletion of any nonrenewable natural resource?	_____	_____	<u>X</u>
10. Risk of Upset. Will the proposal involve:			
a. A risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions?	_____	_____	<u>X</u>
b. Possible interference with an emergency response plan or an emergency evacuation plan?	_____	_____	<u>X</u>
11. Population. Will the proposal:			
a. Alter the location, distribution, density, or growth rate of the human population of an area?	_____	_____	<u>X</u>

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
12. Housing. Will the proposal:			
a. Affect existing housing, or create a demand for additional housing?	_____	_____	<u>X</u>
13. Transportation/Circulation. Will the proposal result in:			
a. Generation of substantial additional vehicular movement?	_____	_____	<u>X</u>
b. Effects on existing parking facilities, or demand for new parking?	_____	_____	<u>X</u>
c. Substantial impact upon existing transportation systems?	_____	_____	<u>X</u>
d. Alterations to present patterns of circulation or movement of people and/or goods?	_____	_____	<u>X</u>
e. Alterations to waterborne, rail or air traffic?	_____	_____	<u>X</u>
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians?	_____	_____	<u>X</u>
14. Public Services. Will the proposal have an effect upon, or result in a need for new or altered governmental services in any of the following areas:			
a. Fire protection?	_____	_____	<u>X</u>
b. Police protection?	_____	_____	<u>X</u>
c. Schools?	_____	_____	<u>X</u>
d. Parks or other recreational facilities?	_____	_____	<u>X</u>
e. Maintenance of public facilities, including roads?	_____	<u>X</u>	_____
f. Other governmental services?	_____	<u>X</u>	_____

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
15. Energy. Will the proposal result in:			
a. Use of substantial amounts of fuel or energy?	_____	_____	<u>X</u>
b. Substantial increase in demand upon existing sources of energy, or require the development of new sources of energy?	_____	_____	<u>X</u>
16. Utilities. Will the proposal result in a need for new systems, or substantial alterations to the following utilities:			
a. Power or natural gas?	_____	_____	<u>X</u>
b. Communication systems?	_____	_____	<u>X</u>
c. Water?	_____	_____	<u>X</u>
d. Sewer or septic tanks?	_____	_____	<u>X</u>
e. Storm water drainage?	_____	_____	<u>X</u>
f. Solid waste and disposal?	_____	_____	<u>X</u>
17. Human Health. Will the proposal result in:			
a. Creation of any health hazard or potential health hazard (excluding mental health)?	_____	_____	<u>X</u>
b. Exposure of people to potential health hazards?	_____	_____	<u>X</u>
18. Aesthetics. Will the proposal result in:			
a. The obstruction of any scenic vista or view open to the public?	_____	_____	<u>X</u>
b. The creation of an aesthetically offensive site open to public view?	_____	_____	<u>X</u>

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
19. Recreation. Will the proposal result in:			
a. An impact upon the quality or quantity of existing recreational opportunities?	_____	_____	_____X_____
20. Cultural Resources. Will the proposal:			
a. Result in the alteration of or the destruction of a prehistoric or historic archaeological site?	_____	_____	_____X_____
b. Result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object?	_____	_____	_____X_____
c. Have the potential to cause a physical change which would affect unique ethnic cultural values?	_____	_____	_____X_____
d. Restrict existing religious or sacred uses with the potential impact area?	_____	_____	_____X_____
21. Mandatory Findings of Significance.			
a. Potential to degrade: Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	_____	_____	_____X_____

	<u>Yes</u>	<u>Maybe</u>	<u>No</u>
b. Short-term: Does the project have the potential to achieve short-term, to the disadvantage of long-term, environmental goals? (A short-term impact on the environment is one which occurs in a relatively brief, definitive period of time. Long-term impacts will endure well into the future.)	_____	_____	<u>X</u>
c. Cumulative: Does the project have impacts which are individually limited, but cumulatively considerable? (A project may impact on two or more separate resources where the impact on each resource is relatively small, but where the effect of the total of those impacts on the environment is significant.)	_____	_____	<u>X</u>
d. Substantial adverse: Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	_____	_____	<u>X</u>

DISCUSSION OF ENVIRONMENTAL EVALUATION

Refer to Attachment A for Initial Study Checklist Responses.

DETERMINATION

On the basis of this initial evaluation:

- X** I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

OR

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION WILL BE PREPARED.

OR

I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

January 12, 1996
Date

Kristin Johnson
Signature

For: City of Piedmont

ATTACHMENT A
REVISED ENVIRONMENTAL CHECKLIST RESPONSES

1. EARTH

No Impact (1a-1g)

- 1a. The proposed project will not result in unstable earth conditions or in changes in geologic substructures.
- 1b. The proposed project will not result in disruptions, displacements, compaction or over-covering of the soil.
- 1c. The proposed project will not result in a change in topography or ground surface relief features.
- 1d. The proposed project will not result in the destruction, covering or modification of any unique geologic or physical features.
- 1e. The proposed project will not result in any increase in wind or water erosion of soils, either on or off the site.
- 1f. The proposed project will not result in changes in deposition or erosion of beach sands, or changes in siltation, deposition or erosion which may modify the channel of a river or stream or the bed of the ocean or any bay, inlet or lake.
- 1g. The proposed project will not result in exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to earth resources.

The following policies and implementation program under Goal B of the Safety Element address concerns regarding exposure of people or property to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards:

- P1 Restrict construction on known faults and/or active landslides unless slide is stabilized on the basis of a soils and geologic investigation.

- P2 Require that development in areas with a potentially high risk of fault displacement, slope instability, liquefaction, differential settlement, and/or flooding occur only if the owner, at his/her own expense can establish through soils and geologic investigation prepared by a qualified engineer that a structure can be located there without danger to life or property.
- I1 The City will continue to review the City's building code and ordinance regulating development to ensure that they reflect currently accepted seismic design and standards as specified in the Uniform Building Code.

2. AIR

No Impact (2a-2c)

- 2a. The proposed project will not result in substantial air emissions or deterioration of ambient air quality.
- 2b. The proposed project will not result in the creation of objectionable odors.
- 2c. The proposed project will not result in alteration of air movement, moisture, or temperature, or any change in climate, either locally or regionally.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to air quality.

3. WATER

No Impact (3a-3i)

- 3a. The proposed project will not result in changes in currents, or the course or direction of water movements, in either marine or fresh waters.
- 3b. The proposed project will not result in changes in absorption rates, drainage patterns or the rate and amount of surface water runoff.
- 3c. The proposed project will not result in alterations to the course or flow of flood waters.
- 3d. The proposed project will not result in change in the amount of surface water in any water body.

- 3e. The proposed project will not result in discharge into surface waters, or in any alteration of surface water quality, including but not limited to temperature, dissolved oxygen or turbidity.
- 3f. The proposed project will not result in alteration of the direction or rate of flow of ground waters.
- 3g. The proposed project will not result in change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations of ground water.
- 3h. The proposed project will not result in substantial reduction in the amount of water otherwise available for public water supplies.
- 3i. The proposed project will not result in exposure of people or property to water related hazards such as flooding or tidal waves.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to water resources.

4. PLANT LIFE

No Impact (4a-4d)

- 4a. The proposed project will not result in a significant change in the diversity of species, or number of any species of plants (including trees, shrubs, grass, crops, and aquatic plants).
- 4b. The proposed project will not result in reduction of the numbers of any unique, rare or endangered species of plants.
- 4c. The proposed project will not result in the introduction of new species of plants into an area, or in a barrier to the normal replenishment of existing species.
- 4d. The proposed project will not result in reduction in acreage of any agricultural crop.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to plant life.

A Natural Diversity Data Base (NDDB) analysis of the location and condition of rare and threatened plants and natural communities was collected by the Department of Fish and Game for the Piedmont area. The report identified no sensitive plant species within the City of Piedmont. The City of Piedmont is an urban area and, therefore, does not have agricultural land within the City boundaries.

5. ANIMAL LIFE

No Impact (5a-5d)

- 5a. The proposed project will not result in a change in the diversity of species, or numbers of any species of animals (birds, land animals including reptiles, fish and shellfish, benthic organisms or insects).
- 5b. The proposed project will not result in a reduction of the numbers of any unique, rare or endangered species of animals.
- 5c. The proposed project will not result in the introduction of new species of animals into an area, or result in a barrier to the migration or movement of animals.
- 5d. The proposed project will not result in the deterioration to existing fish or wildlife habitat.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to animal life.

A Natural Diversity Data Base (NDDB) analysis of the location and condition of rare and threatened animal species was collected by the Department of Fish and Game for the Piedmont area. The report identified no sensitive animal species within the City of Piedmont.

6. NOISE

No Impact (6a-6b)

- 6a. The proposed project will not result in increases in existing noise levels.
- 6b. The proposed project will not result in exposure of people to severe noise levels.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to noise.

There are no projected changes in the noise levels in the community based on the assumptions provided in the Land Use Element and Circulation Element of the updated General Plan.

7. LIGHT OR GLARE

No Impact (7a)

7a. The proposed project will not result in new light or glare.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to light or glare.

Lighting is addressed in Goal E of the Public Utilities and Facilities Element of the General Plan. The following goal, policy and implementation program address potential concerns related to light and glare:

GE Provide proper lighting for public safety.

P1 Maintain at least the current levels of illumination.

I2 The City will solicit input from residents on the adequacy of street lighting.

8. LAND USE

No Impact (8a)

8a. The proposed project will not result in substantial alteration of the present or planned land use of an area.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to land use.

The following policies and implementation programs under Goals A and B of the Land Use Element address concerns related to existing and proposed land use.

- GA Maintain the character of Piedmont as a residential Community.
- P1 Require that the development of undeveloped parcels and vacant lots must be consistent with the established density standards.
- P2 Require that the subdivision of large lots and estates must at a minimum meet density standards and further must be compatible with existing lot sizes.
- GB Provide for a balance of commercial uses which serve the basic needs of the community.
- P1 Support established neighborhood commercial areas which serve the limited retail and personal service needs of the residents.
- P2 Encourage a variety of limited retail and personal service uses within existing neighborhood commercial areas.

9. NATURAL RESOURCES

No Impact (9a-9b)

- 9a. The proposed project will not result in an increase in the rate of use of any natural resources.
- 9b. The proposed project will not result in substantial depletion of any nonrenewable natural resource.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to natural resources.

10. RISK OF UPSET

No Impact (10a-10b)

- 10a. The proposed project will not result in a risk of an explosion or the release of hazardous substances (including, but not limited to, oil, pesticides, chemicals or radiation) in the event of an accident or upset conditions.
- 10b. The proposed project will not result in possible interference with an emergency response plan or an emergency evacuation plan.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to risk of upset.

The Fire Department is responsible for the safety of the community in case of an explosion or release of hazardous substances. The following goals and policy from the Safety Element of the General Plan address potential concerns:

GF Provide residents and businesses maximum fire protection.

P5 Work in cooperation with State, County, and adjacent cities in dealing with transport of hazardous materials on City streets.

11. POPULATION

No Impact (11a)

11a. The proposed project will not alter the location, distribution, density, or growth rate of the human population of an area.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to population.

The following goal and policies from the Land Use Element addresses the issues of density and related topics:

GA Maintain the character of Piedmont as a residential community.

P1 Require that the development of undeveloped parcels and vacant lots must be consistent with established density standards.

P2 Require that the subdivision of large lots and estates must at a minimum meet density standards and further must be compatible with existing lot sizes.

I1 The City may review the zoning ordinance to establish prescriptive standards which reflect established density/intensity standards and guide future development.

12. HOUSING

No Impact (12a)

- 12a. The proposed project will not affect existing housing, or create a demand for additional housing.

Discussion

The Housing Element of the General Plan is not a part of the General Plan Update.

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to housing.

13. TRANSPORTATION/CIRCULATION

No Impact (13a-13f)

- 13a. The proposed project will not generate substantial additional vehicular movement.
- 13b. The proposed project will not effect existing parking facilities, or the demand for new parking.
- 13c. The proposed project will not result in a substantial impact upon existing transportation systems.
- 13d. The proposed project will not result in alterations to present patterns of circulation or movement of people and/or goods.
- 13e. The proposed project will not result in alterations to waterborne, rail or air traffic as these modes of travel do not exist in the City of Piedmont.
- 13f. The proposed project will not result in an increase in traffic hazards to motor vehicles, bicyclists or pedestrians.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to transportation/circulation.

The following goals and policies of the Circulation Element of the General Plan address circulation in the City:

- GA Ensure safe and efficient circulation patterns and develop a circulation system that serves and complements the land use pattern.
- P1 Continue to evaluate the street functional classification system based on criteria and design standards adopted by the City Council.
- GB Mitigate deficiencies and reduce safety hazards in the existing circulation pattern.
- GC Provide an optimum level of transit service to meet the needs of the residents.
- GF Provide adequate parking for residents, businesses and civic activities in Piedmont.
- P1 The City may evaluate alternative solutions and/or programs to relieve existing parking congestion.

14. PUBLIC SERVICES.

No Impact (14a-14e)

- 14a. The proposed project will not have an effect upon, or result in a need for new or altered fire protection services.
- 14b. The proposed project will not have an effect upon, or result in a need for new or altered police protection services.
- 14c. The proposed project will not have an effect upon, or result in a need for new or altered schools.
- 14d. The proposed project will not have an effect upon, or result in a need for new or altered parks or other recreational facilities.

Maybe an Impact (14f)

- 14e. The proposed project may have an effect upon, or result in a need for new or altered maintenance of public facilities, including roads.
- 14f. The proposed project may have an effect upon or result in a need for other governmental services.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to public services.

The proposed project provides policies and implementation programs to bring public buildings and grounds up to engineering standards to mitigate seismic deficiencies. This may result in a need for altered governmental services. The proposed project balances goals, policies, and programs by specific time frames to assure that a significant alteration of existing levels of services will not occur. No impact is anticipated.

Currently the City street lights are owned and maintained by the Pacific Gas & Electric Company (PG&E). If the City is successful in the purchase of the existing street lights, the City may elect to maintain the street lights rather than use a contract maintenance service for maintenance, therefore altering the existing governmental service provided by the City of Piedmont. No impact is anticipated.

15. ENERGY

No Impact (15a-15b)

- 15a. The proposed project will not result in the use of substantial amounts of fuel or energy as the scope of construction in the City of Piedmont.
- 15b. The proposed project will not result in a substantial increase in demand upon existing sources of energy, or require the development of new sources of energy as the predominant construction.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to energy.

16. UTILITIES

No Impact (16a-16f)

- 16a. The proposed project will not result in a need for new systems, or substantial alterations to power or natural gas.
- 16b. The proposed project will not result in a need for new systems, or substantial alterations to communication systems.
- 16c. The proposed project will not result in a need for new systems, or substantial alterations to water.
- 16d. The proposed project will not result in a need for new systems, or substantial alterations to sewer or septic tanks.

- 16e. The proposed project will not result in a need for new systems, or substantial alterations to storm water drainage.
- 16f. The proposed project will not result in a need for new systems, or substantial alterations to solid waste and disposal.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to utilities.

17. HUMAN HEALTH

No Impact (17a-17b)

- 17a. The proposed project will not result in the creation of any health hazard or potential health hazard (excluding mental health).
- 17b. The proposed project will not result in the exposure of people to potential health hazards.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to human health.

18. AESTHETICS

No Impact (18a-18b)

- 18a. The proposed project will not result in the obstruction of any scenic vista or view open to the public.
- 18b. The proposed project will not result in the creation of an aesthetically offensive site open to public view.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to aesthetics.

19. RECREATION

No Impact (19a)

- 19a. The proposed project will not result in an impact upon the quality or quantity of existing recreational opportunities.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to recreation.

20. CULTURAL RESOURCES

No Impact (20a-20d)

- 20a. The proposed project will not result in the alteration of or the destruction of a prehistoric or historic archaeological site.
- 20b. The proposed project will not result in adverse physical or aesthetic effects to a prehistoric or historic building, structure, or object.
- 20c. The proposed project will not result in the potential to cause a physical change which would affect unique ethnic cultural values.
- 20d. The proposed project will not result in the restriction of existing religious or sacred uses with the potential impact area.

Discussion

The proposed project consists of the update and reformat of the General Plan and does not significantly alter existing and proposed land uses in the City. No impacts due to the proposed project are anticipated related to cultural resources.

21. MANDATORY FINDINGS OF SIGNIFICANCE

The project does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory.

The project does not have the potential to achieve short-term, to the disadvantage of long-term, environmental goals.

The project does not have impacts which are individually limited, but cumulatively considerable.

The project does not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.

DISCUSSION OF ENVIRONMENTAL EVALUATION

Refer to Attachment A for Initial Study Checklist Responses.

DETERMINATION

On the basis of this initial evaluation:

X I find the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

OR

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A NEGATIVE DECLARATION WILL BE PREPARED.

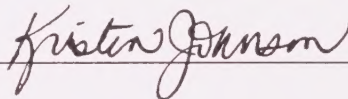
OR

I find the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

January 12, 1996

Date

Signature



For: CITY OF PIEDMONT

U.C. BERKELEY LIBRARIES



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